SHARP SERVICE MANUAL

CODE: 00ZARFX2//A1E

DIGITAL COPIER
FAX EXPANSION KIT
(For USA/Canada)

AR-FX2

EXPANSION MEMORY MODEL
2MB: AR-MM5
4MB: AR-MM6
8MB: AR-MM7

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Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

SHARP CORPORATION

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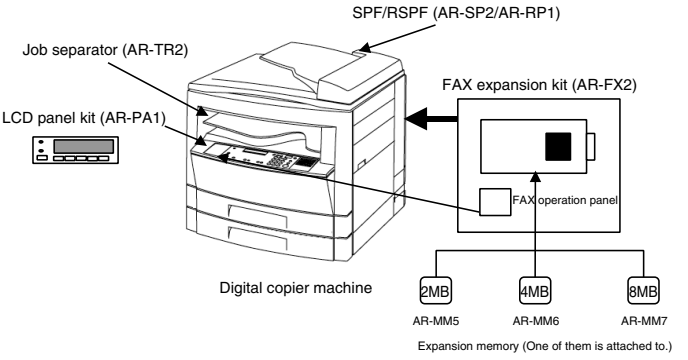
[1] OUTLINE

A. Introduction

This machine is the FAX expansion kit which is attached to the digital copier AR-160/200 series to provide facsimile functions.

Note:

1) When attaching this machine, the SPF/RSPF, the LCD panel, and the motherboard are required.
2) The SPF (AR-SP2) or the RSPF (AR-RP1) must be installed to the copier which this machine is attached to .



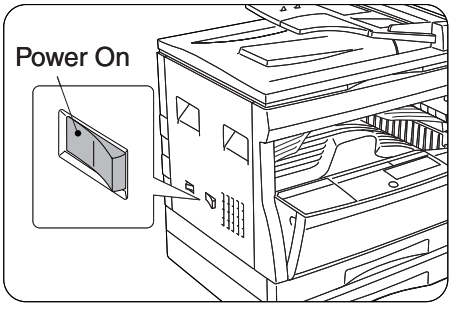
B. Turning Power "ON" and "OFF"

To turn the power on and off, use the power switch located on the left side of the cabinet.

(1) Turning Power "ON"

To use the fax or copier, turn the power switch located on the left side of the cabinet to the "ON" position.

1) Turn the power switch to the "ON" position.
   - After 15 seconds, the system check is finished and the machine enters the copier or fax mode initial state. To switch between copier and fax modes press the COPY/FAX key.



Note:

- When using the fax function, when the initial state is displayed, you can send faxes.
- When you turn on the power, the machine enters copier mode or fax mode depending on the last mode used before power was turned off. For example, if the machine is in copier mode and the power is turned off, it will enter copier mode when the power is turned on again. Likewise, if the machine is in fax mode and the power is turned off, it will enter fax mode when the power is turned on again.
- The machine is set up from the factory to enter a power save mode from the copier or fax modes if it is turned on and not used for a specified period of time.

(2) Turning Power "OFF"

You do not need to turn the power off unless you are trying to clear an alarm, removing foreign substances from within the machine, or moving the machine.

Note: Do not turn of power while using the fax machine. If you turn off the power, you will not be able to receive faxes.

1) Confirm that the machine is idle.
   - To confirm that the machine is idle, make sure one of the following conditions exists:

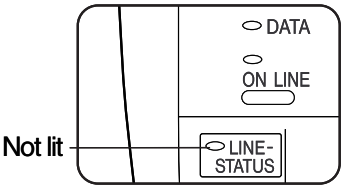
[Copier mode]
- The START key indicator is lit. (Initial state.)

[Fax mode]
- The display panel shows the following message (initial state):

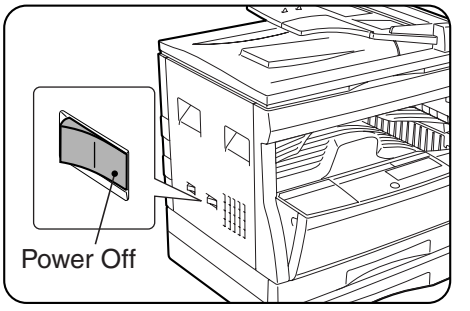
[Example]

```
SEP 10 FRI  06:30 PM
STAND-BY        100%
```

- The LINE STATUS indicator is not lit.



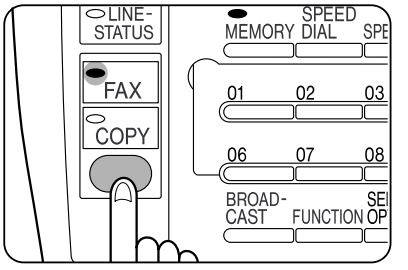
2) Turn the power switch to the "OFF" position.
   - If you turn the power off while the machine is in use, a misfeed may occur. Also, settings will be lost.



(3) Selecting Fax Mode

This model has two modes: copier mode and fax mode. When the fax mode indicator above the COPY/FAX key is lit, you can use the machine as a fax. When the copier mode indicator is lit, you can use the machine as a copier. To change from copier mode to fax mode, press the COPY/FAX key. Features available with the fax function (for example automatic fax reception) are enabled even in copier mode.

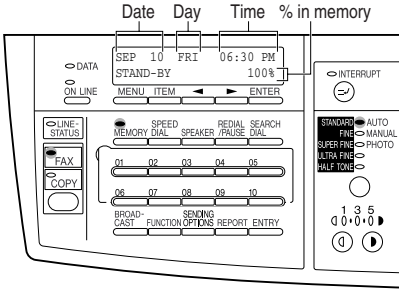
1) If the copier mode indicator is lit, press the COPY/FAX key.
   - The fax mode indicator lights up.
   - If you are done faxing and want to enter the copier mode, press the COPY/FAX key again to select copier mode.



Note:

- If the machine is in use, you cannot change modes. If you want to manually receive a fax or if you want to quickly enter fax mode, press the CLEAR key to interrupt copying, and press the COPY/FAX key.
- After sending or receiving faxes, the machine returns to the fax mode initial state, but does not return to the copier mode.

a. Fax Mode Initial State
In the fax mode initial state, the messages similar to the following are shown on the display panel. Depending on user program settings, this display may differ slightly from yours.



b. Fax Function Features Enabled in Copier Mode
- Automatic fax reception
- Timer operations
- Programs that use timer operations
- Relay request
- Sending documents in memory from memory sending mode

[2] SPECIFICATIONS

1. Communication System

Transmission method	Transmission time	3 sec. (Super G3/33600bps) 6 sec. (G3 ECM/14400bps)
	Compression method	MH, MR, MMR
	Modem speed	36600bps → 2400bps automatic fall back
	Compatibility	Super G3/G3
	Applicable telephone line	Public switched telephone network (PSTN), Private branch exchange (PBX)
	Number of lines used	1 line (cannot be added)
	ECM	YES

2. Scanning system

Original size	Max. document width	297mm
	Unscannable region	Leading edge: 5mm max. trailing edge: 6mm max., left end + right end: 6mm max.
	Transmitted document size	AB system: A3/B4/A4/A4R/A5 Inch system: 11 × 17/8.5 × 14/8.5 × 11/8.5 × 11R/ 5.5 × 8.5
	Original size enter	AB system: A3/B4/A4/A4R/A5 Inch system: 11 × 17/8.5 × 14/8.5 × 11/8.5 × 11R/ 5.5 × 8.5
	Duplex sending	NO
	Long document	YES(Max. 1000mm) Depends on document width and resolution.
Original size detection	SPF	YES(A3 to A5, 11 × 17 to 8.5 × 5.5)
	OC	YES(A3 to A5, 11 × 17 to 8.5 × 5.5)
Transmission mode	SPF/OC transmission changeover	NO (changeover cannot be made at any time during document scanning)
Document loading capacity, scanning cycle (SPF, RSPF)	Automatic feed compatibility	YES
	Document loading capacity	30 sheets
	Document scanning cycle	18 sheets/min. (Standard mode, A4R memory transmission/No rotate)
	Document scanning speed	3.3 sec./sheet (A4R: memory transmission, Standard mode/No rotate)

3. Image processing system

Half tone (photo mode)		Equivalent to 256 scales (At Fine/Super Fine/Ultra Fine mode)
Contrast adjustment	Contrast selection	Auto/manual in 5 stages
Resolution selection	Standard	8 dots/mm × 3.85 lines/mm
	Fine	8 dots/mm × 7.7 lines/mm
	Super fine	8 dots/mm × 15.4 lines/mm
	Ultra Fine	16 dots/mm × 15.4 lines/mm: in compliance with ITU-T (Cannot be received when there is no extra memory, be received at Super Fine mode.)
Print resolution	600dpi (with resolution compensation)	

4. Print system

Printing size	Max. printing width	293mm (11 inch)
	Print paper size detection	YES (All sizes)
	Printing size	AB system: A3/B4/A4/A4R/A5 Inch system: 11 × 17/8.5 × 14/8.5 × 11/8.5 × 11R/ 5.5 × 8.5
Print paper	Cassette capacity	Standard: 250 sheet × 2 or 250 sheet × 1 Option : 250 sheet × 2 or 250 sheet × 1
	Print paper empty detection	YES
	Feed Tray	All feed trays installed except Multi Bypass Tray
	Size setting	Depends on size setting in the copy mode.

5. Transmission function

Dialing function	Rapid key dialing	35 other parties	
	Speed dialing	150 other parties	
	Group dialing	35 groups (including the other parties registered to rapid key dialing)	
	Search dial	Any of other parties registered to speed dialing, rapid key dialing and group dialing can be searched for using the first three letters.	
	Chain dialing	YES	
Dialing function	Redialing	The last number dialed is saved (dialing from ten-key pad only) Cannot be cleared by clear all key	
	Program dial	5 programs	
	Mode recall	NO	
F code	Sub address	NO	
	Password	NO	
Timer mode	Timer mode: transmission/ polling	Time of day specified for transmission or polling.	
Recall mode	Automatic recall mode when other party is busy	Intervals	1 to 15 minutes
		Count	1 to 15 times/ 0: no re-transmission SEC/SECL:1 to 14 times/ 0:no retransmission
	Recall mode when communication error occurs	Intervals	1 to 15 minutes/ 0: re-transmission immediately after line disconnection
		Count	0 or 1 times/ 0: no re-transmission USA Canada: 1 time/ 0: no retransmission
		Transmitted pages	Beginning with the page where error occurred
	Number of transmissions counted in recall mode simultaneously		Max. 50 transmissions
	Subsequent transmission reservation override in recall mode		YES (ON/OFF in key operator program)
Automatically reduced transmission	Document is transmitted in reduced size according to other party's machine		YES (ON/OFF in key operator program)
Memory transmission	Memory transmission		YES
	Number of transmission reservations that can be made		50 transmissions
	Processing when memory is full		Transmission cancel or transmission of scanned data only
	Setting change after transmission setting		NO

Direct transmission			YES (SPF : 30 sheet, OC : 1 sheet)
Default setting			Setting made in user program
Line sound monitoring function	Dialing confirmation monitoring		YES (Volume adjustment made/muting enable in soft SW)
Broadcast function	Broadcast	Number of destinations	200 destinations (When group dialing is used, the number of other parties registered to group dialing is added)
		Transmission method	Broadcast key, group key
		Usable numbers	Numbers entered from the 10-key pad, all numbers registered to rapid key dialing
	Group dialing	Transmitted to group dialing numbers registered to rapid keys	
	Relay broadcast transmission	Instructing station	Only from the machine having Sharp relay broadcast instruction transmission function
		Relay station	Only from the machine having Sharp relay broadcast transmission function
		Multiple relay	NO
		Number of relay groups	10 groups
		Number of receiving stations that may be specified per group	Up to 100 numbers in terms of rapid key dialing
Confidential transmission		Other party's station	Only from the machine having Sharp confidential receiving function
Scanning designation	Page splitting		NO
	Page coupling		NO
	Variable scale factor		NO
Priority function	Transmission reservation interrupt		YES (By direct transmission)
	Broadcast interrupt		YES (By direct transmission)
	Recall mode interrupt		YES (Manual disabled)
Serial transmission	Serial transmission		NO
Rotational transmission		Paper size	(Inch system) 8.5 × 11 → 8.511R Each can be set in user program.

Book document transmission	Transmission method		In OC mode
	Consecutive page transmission (page splitting)		NO
Verification stamp			NO
Memory Polling	Memory Polling		YES
	Polling Security	Check by other party's number	YES
		Check by matching of system number (user's own machine) and ID number (other party's machine) (between Sharp machines only)	YES

6. Receiving function system

Receiving mode	Default setting		Automatic receiving (can be switched to manual receiving in Soft SW or Receive Mode key)
	Automatic receiving	Automatic receiving setting	YES
		Number of calls	0 to 9 times (factory-set to twice: can be changed in user program)
		Automatic phone/ fax switching	NO
		Non-call receiving	Enabled by setting the number of calls to 0.
Receiving mode	Manual receiving	Manual receiving setting	YES
		Number of switching calls to automatic receiving in manual receiving mode	NO
	Answering machine connection	Answering machine connection	NO
Receiving mode timer switching			NO
Variable scale factor receiving	Reduction	Reduction made within regular size	YES (ON/OFF in user program)
		Reception data print size designation	Available by tray designation
		By received data print size designation	By selected paper feed tray (setting in user program),
	Enlargement		NO
Memory receiving function	Substitute receiving into memory		Only when data cannot be output
Forced memory receiving			NO

Received data override output			NO
Transfer	Transfer at occurrence of trouble		YES (by user program setting)
	Transfer method		By the special transmission key in case of a trouble
Number-specified receiving	Receiving of only specified number enabled		NO
	Receiving of only specified number disabled		NO
Confidential function	Confidential receiving	Sender	Only Sharp machine having confidential function
		Confidential box	Up to 10 boxes may be set
		Confidential box name	20 letters
		Confidential ID code	May be set per mailbox
Rotational receiving			According to cassette fitted
Split receiving	Split size	Long document, absence of receiving size paper	
	Split receiving setting	YES (according to paper selection condition in user program)	
Duplex receiving			NO
2-in-1 receiving			NO
Polling		Polling	YES
		Resolution at Polling	Fine
Turn around transmission			NO

7. Registration system

Number registration	Speed dialing	Number of other parties	150 other parties
		Number of other party's number digits	40 digits
		Registered name	20 half-size letters (may be omitted) ∗ When omitted, register speed dialing number (000 to 149).
		Searched letters	Up to 3 half-size letters
		User tag classification	NO
		International communication mode setting	YES

Number registration	Speed dialing	Transmission method	Speed dialing keys + (000 to 149) + start key
	Rapid key dialing	Number of other parties	35 other parties
		Number of other party's number digits	40 digits
		Registered name	20 half-size letters (may be omitted) ∗ When omitted, register rapid key dialing number (01 to 35).
		Searched letters	Up to 3 half-size letters
		User tag classification	NO
		International communication mode setting	YES
		Transmission method	Rapid key dialing
	Group dialing	Registration keys	Rapid keys
		Max. number of registered other parties per group	100 other parties (total of registered other parties is up to 150)
		Registerable number	Numbers registered to speed dialing and rapid key dialing, numbers entered from ten-key pad
		Registered name	20 half-size letters (may be omitted)
		Searched letters	Up to 3 half-size letters
		User tag classification	NO
		Transmission method	Group dialing
Number registration	Program	Number of programs	5 programs
		Registerable item	All items that can be set for transmission
		Registered name	20 half-size letters (may be omitted) ∗ When omitted, register rapid key dialing number (1 to 35).
		Calling method	By pressing the program key
		Setting change after calling	NO

Sender registration		Sender's name	40 half-size letters, registered in user program
		Sender's number	20 digits, registered in user program
Polling/ Memory Polling security	Polling enable number	Polling source number registration	10 numbers, 20 digits
	System number	System number registration	Up to 1 number, registered in user program
	ID number	ID number registration	Up to 10 numbers, registered in user program
Letter input	Input method	Key input	YES
	Letters that may be input	Characters	Alphanumeric characters, symbols
Registered data read-out, read-in			NO
Date & time adjustment			Registered in user program
Date indication change			YES (Order of year, month and day can be changed)
Backup	Registered data backup at power failure		SRAM used, built-in battery-backed

8. Telephone function system

Handset		NO
On-hook Dial		YES
Hold		NO
Pause		YES (1 to 15 seconds, set in user program)
Phone transmission at power failure		No (external phone transmission can be made)
Ringer volume		Adjusted in user program
Speaker volume		Adjusted in user program
Tone pulse switching		Switched between 10 and TONE in user program
External telephone		YES
	Remote receiving switching	YES (switching number in 1 digit + ✱ + ✱)
Automatic telephone/fax switching		NO
	Audio response	NO
	Response voice recording	NO

9. Memory system

Memory Capacity	Standard	2MB
	Option	Up to 8MB (+2M/+4M/+8M)
Confirmation Transmission reservation	Display in LCD	YES
	Print out	YES
Memory using condition		YES (percent display)
Memory Back-up		YES (flash memory)

10. Additional information function for transmission

Page counter			YES
Date printing			YES (Year/month/day, Year in 4 digits)
	Date indication change		YES
Cover Sheet	Cover item	Other party's name	YES
		Other party's number	YES
		Sender's name	YES
		Sender's number	YES
		Transmission message	YES
		Print paper size	A4, LETTER
Trans-mission message	Regular message		CONFIDENTIAL PLS. DISTRIBUTE URGENT PLS. CALL BACK IMPORTANT
	User message		NO
Sender information Additional	Sender's number		20 digits
	Sender's name		40 half-size letters

11. Additional printing function for receiving

Index printing	YES (setting in user program)

12. Listingfunction

Activity Report	List size	A4, LETTER (not output if size setting is not A4, LETTER or larger)
	Activity Report memory capacity	50 communications for transmission/receiving respectively
	Number of communications	50 communications for transmission/receiving respectively
	Time-specified output	YES(2times a day)
	When recording memory is full	NO
	Printing sequence	LAST IN LAST OUT
	Department-by-department output	YES (department-by-department communication time is output as department-by-department management record table)
Activity Report	Time-specified communication table	Common to transmission record table
	Confidential receiving confirmation table	YES
Communication result table function	Communication result table (transmission)	YES (any of always output/only when transmission could not be made/not output is set in user program)
	Broadcast transmission report	YES (any of always output/only destination to which transmission could not be made/not output is set in key operator program)
	Communication result table (receiving)	YES (any of always output/only when transmission could not be made/not output is set in key operator program)
	Document image printing when memory transmission is not yet made	YES (part of first page of document is printed: ON/OFF setting can be made in user program/confidential transmission data is never printed)
Communication result table function	Communication report table (Confidential reception)	YES (Output/Not output)
Other report/list	Rapid key dialing list	YES (output as telephone number list)
	Speed dialing list	YES (output as telephone number list)
	Group dialing list	YES
	Transmission message list	NO
	ID/sender list	YES
	Confidential ID list	YES
	User switch list	YES
	Memory image erasure table	NO

13. Others

CSI signal send out	CSI signal send out	YES
Department management	Department-by-department user restriction	YES
	Number of set departments	20 departments
	Department-by-department charge management function	NO
Operation panel display	LCD	20 letters by 2 lines

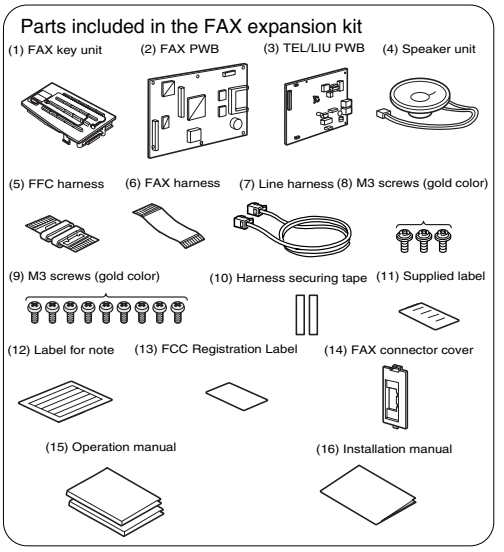
14. Items examined for addition

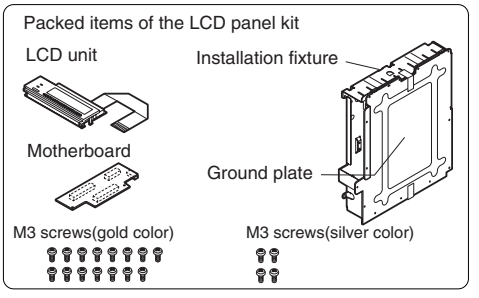
FAST	For USA
Distinctive Ringing	For USA: 3 types For Canada: 5 types
Auto Daylight saving setting	For Europe USA time

[3] INSTALLING PROCEDURE

1. FAX expansion kit, LCD panel kit installation

● When installing the FAX expansion kit, the LCD panel kit is required.

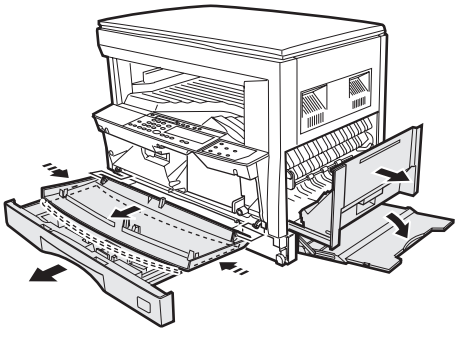




Note: Before performing this procedure, be sure to disconnect the power plug from power outlet. If not, an electric shock may be resulted.

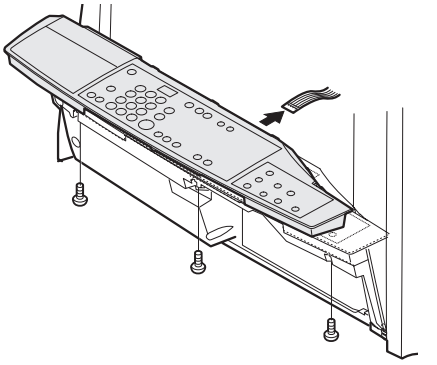
1) Remove the front cover of the copier machine.

● Open the bypass tray and the side cover. Remove the paper tray. Warp the front cover inside by pressing the both sides, and remove the front cover from the hinge arm of the machine.



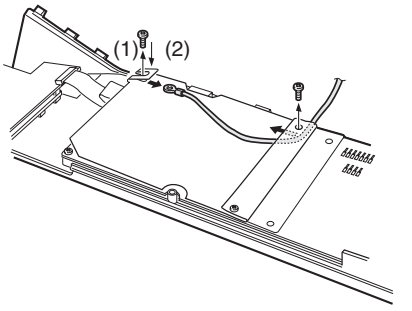
2) Remove the operation panel.

● Remove the operation panel fixing screw, and remove the flat cable.

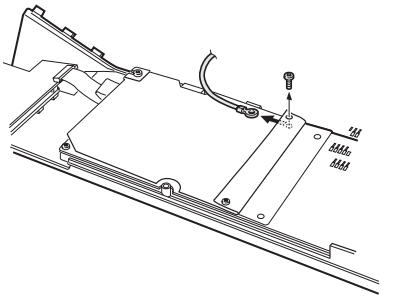


3) Remove the ground wire. (Note: Depending on model or version, select the appropriate diagram (A or B) for ground wire removal.)

(A) Remove the screw, and remove the ground wire. Then install the screw on the left side.

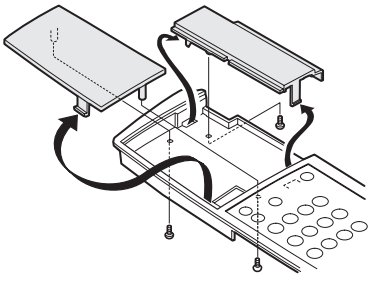


(B) Remove the screw, and remove the ground wire.



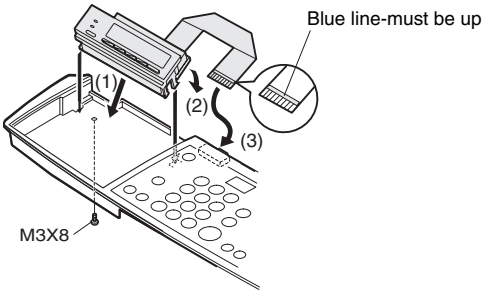
4) Remove the cover.

● Remove the screw, and attach the LCD dummy cover and the FAX dummy cover.



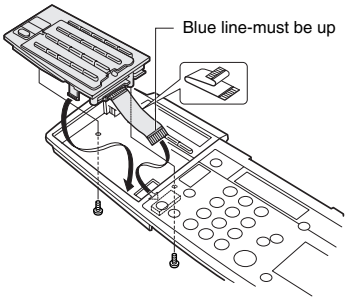
5) Install the LCD unit.

● Attach the LCD unit from your side, engage the pawls with the attachment holes, and fix with screws. Then connect the flat connector.



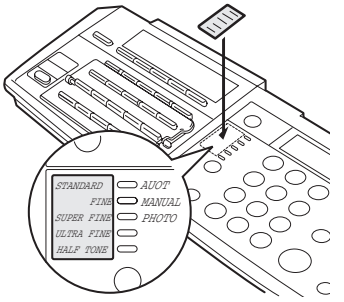
6) Install the Fax key unit.

● Connect the flat cable to the machine connector and fold the flat cable under the FAX key unit. Fix the Fax key unit with screws.



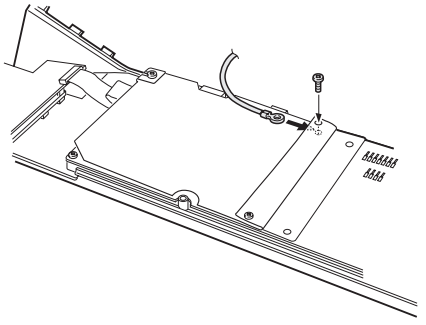
7) Stick the supplied label.

● After removing the protective sheet from the operation panel, stick the supplied label to the left of the exposure indicators.



8) Attach the ground wire.

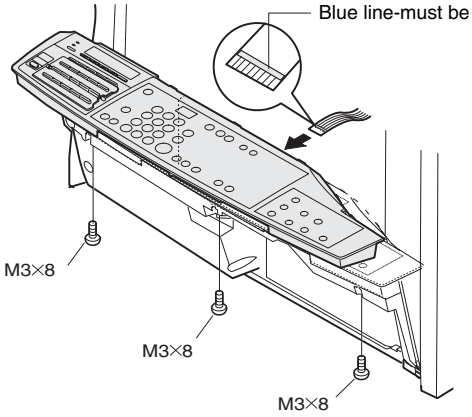
● Reattach the ground wire to the operation panel with the screw. Check that the ground wire is securely squeezed by the aluminum sheets.



9) Attach the operation panel of the copier machine.

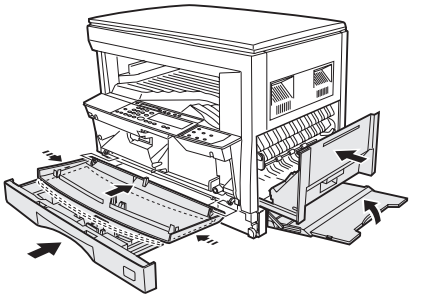
● Attach the flat cable and fix with a screw.

Note: Before attaching the flat cable, release the connector lock and insert the cable. After attachment, lock the connector.



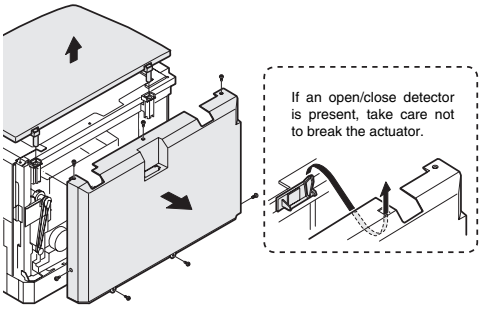
10) Attach the front cover to the copier.

● Warp the front cover by pressing the both sides, and attach it to the hinge arm of the machine. After attaching the paper tray, close the side cover and the bypass tray.



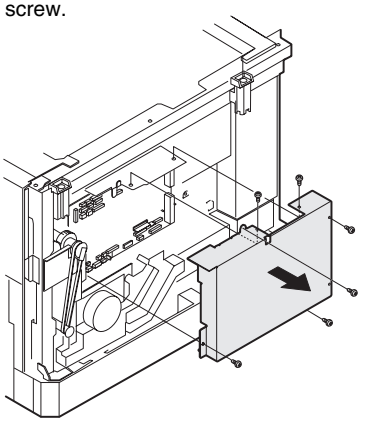
11) Remove the rear cabinet of the machine.

● Remove the document cover. Remove the screw and remove the rear cabinet.



12) Remove the shield plate of the copier.

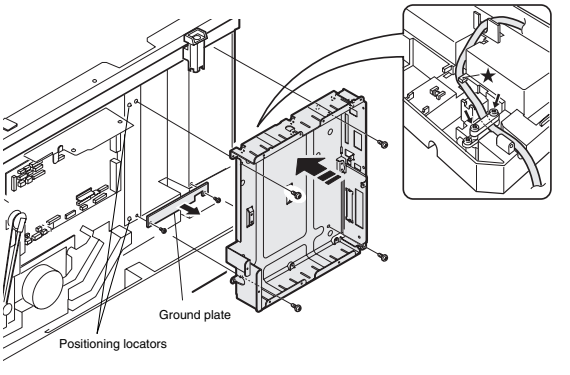
● Remove the screw.



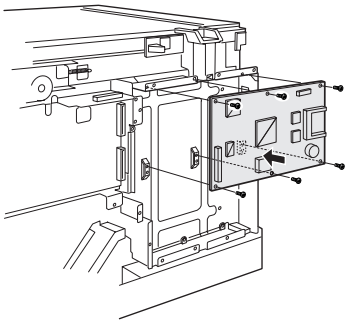
13) Attach the PWB mounting frame.

● If a ground plate is present, remove it and attach the PWB mounting frame by aligning the two positioning locators and using the supplied M3 screws (silver color) as shown in the illustration.

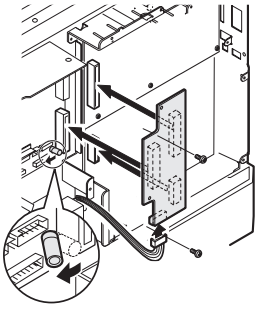
Note: Check that the AC cord is passed under the projection (★) as shown in the figure. If not, loosen the AC cord holder screws, and pass it under the projection, then tighten two screws.



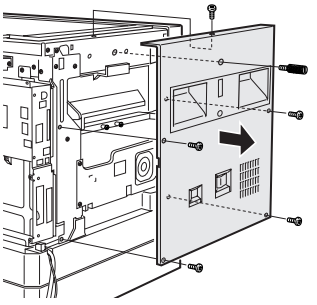
14) Attach the FAX PWB.
● Fix it with (9) M3 screw (gold) packed together with the FAX expansion kit.



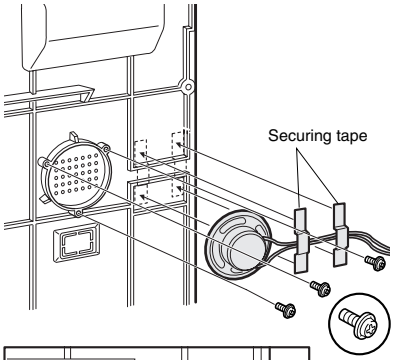
15) Attach the motherboard. (packed together with the LCD panel kit)
● As shown in the figure, tilt the part (electrolytic capacitor) on the MCU PWB, connect the connector from the machine, insert the connectors, and fix with M3 screw (gold).

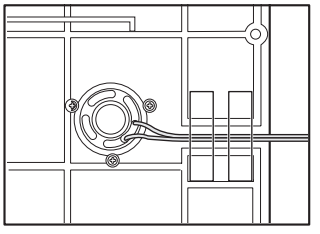


16) Remove the left cabinet from the copier.
● Remove the screw, remove the screw for securing the second and third mirrors, and then remove the left cabinet.

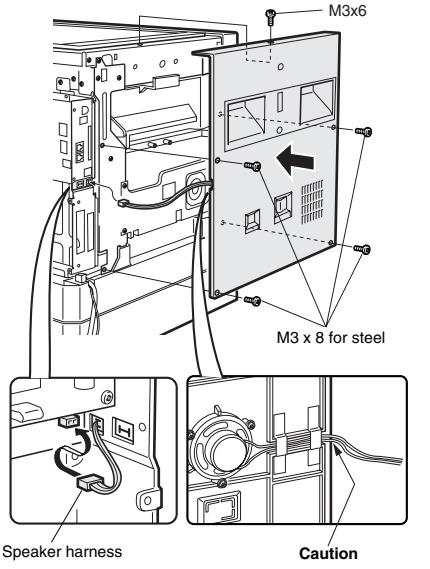


17) Attach the speaker harness.
● Attach the speaker to the left side cabinet using the supplied M3 screws (gold color)(8), and then secure the speaker cable using the harness securing tape included in the FAX expansion kit.



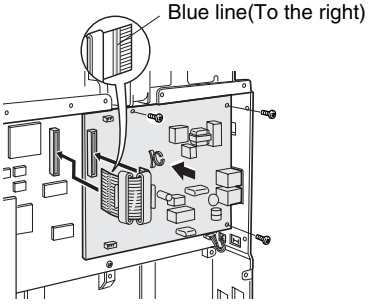


18) Attach the left cabinet to the copier.
● Attach the left cabinet using the screw, then pass the speaker harness through the hole of the PWB mounting frame and connect the speaker harness to the connector of the copier.

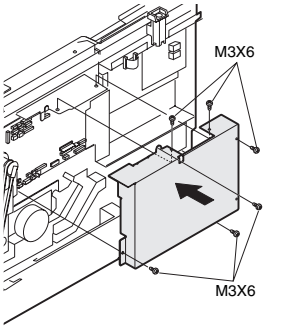


Note: Take care so that the speaker harness does not become caught between the corner frame and the left cabinet.

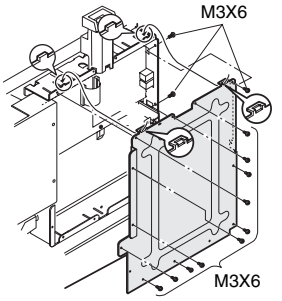
19) Attach the TEL/LIU PWB.
● Attach the TEL/LIU PWB to the PWB mounting frame using the supplied M3 screws (gold color)(9), and then connect the TEL/LIU PWB and FAX PWB using the FFC harness.
Note: Before attaching the FFC harness, release the connector lock and insert the cable. After attaching, lock the connector.



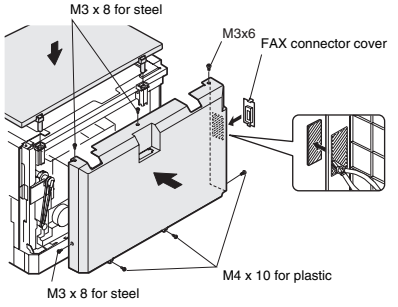
20) Attach the shield plate.
● Attach with the screw.



21) Attach the ground plate.
● Hang the hook, and fix with M3 screw (gold) packed together.



22) Attach the rear cabinet of the machine.
● Cut off the notch section in the rear cabinet with nippers so that the cut surface is flat. Attach the FAX connector cover.
Fix with the screw and attach the document cover.

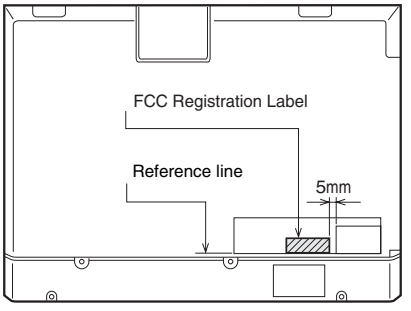


23) Time setup check
● Change the time setup referring to the SIM 26-22

24) Stick the label to the rear cabinet of the copier.
● Stick the FCC Registration Label to the position shown in the illustration.

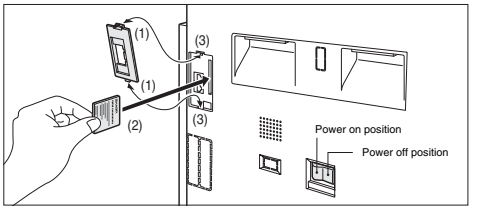
In order to manifest the compliance with FCC Part 68 and IC CS-03, it is required to provide the machine with the FCC Registration Number (USA), Ringer Equivalence (USA) and Ringer Equivalence (Canada). After installing the FAX expansion kit in the machine, please put the registration label, packed with the kit, on the prescribed location.

After installing this kit to the product, stick the supplied FCC Registration Label to the specified location.



2. Expansion memory attachment (AR-MM5, MM6, MM7)

1) Remove the FAX connector cover with a screwdriver.
2) Insert the memory card so that the model name is on the back.
3) Attach the FAX connector cover.



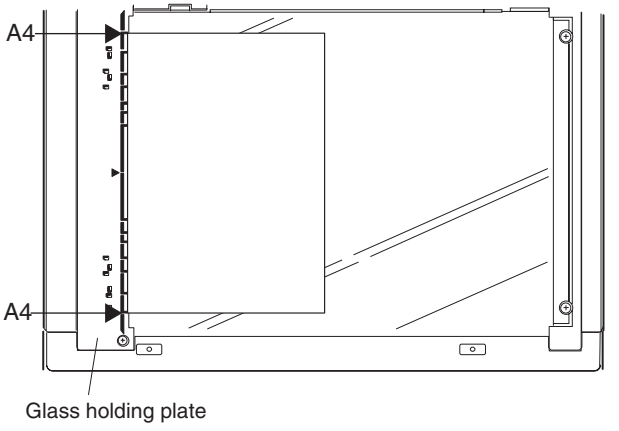
[4] ADJUSTMENTS

Section		Adjustment items		Adjustment procedures	
1	Density section	A	FAX mode density adjustment (Overall mode)		<FAX mode> SIM 46-12
		B	FAX mode density adjustment (Individual mode)		<FAX mode> SIM 46-14 - 46-16
2	Communication section	A	Dial test		<FAX mode> SIM 66-13

1. Density section

A. FAX mode density adjustment (Overall mode) (<FAX mode> SIM 46-12)

1) Set the test chart (TRAP23109SCZZ <CCITT #3 chart>) on the OC table as shown below, and close the OC cover.



2) Switch to the FAX mode and execute SIM 46-12.
3) After warming up, shading is performed and the current density level is displayed on the lower two digits of the display section in standard and auto density mode.
4) Enter the set value with the 10-key to adjust the FAX image density.
5) Make a copy, and adjust so that the following adjustment specification is satisfied.

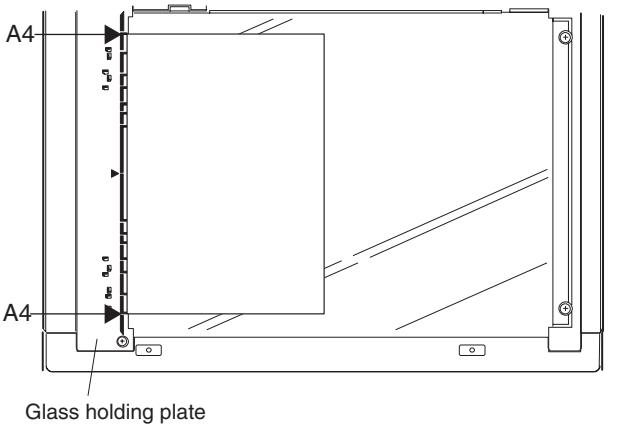
* When an adjustment is made in this mode, the exposure level for each communication mode and each density mode are automatically adjusted accordingly.

<Adjustment specifications>

Density mode	Resolution mode	SIM	CCITT #3 chart output result	Set value	Set range
Auto	Standard	FAX mode 46-12	"3" is slightly copied.	The greater the set value is, the greater the density is, and vice versa.	1 – 99

B. FAX mode density adjustment (Individual mode) (<FAX mode> SIM 46-14 – 16)

1) Set the test chart (TRAP23109SCZZ CCITT #3 chart) on the OC table as shown below, and close the OC cover.



2) Switch to the FAX mode and execute SIM 46-14 to 46-16 depending on the adjustment mode.
3) After warming up, shading is performed and the current density level is displayed on the lower two digits of the display section.
4) Enter the set value with the 10-key to adjust the FAX image density.
5) Make a copy, and adjust the density with the copy as a reference.

<Adjustment specifications>

Resolution mode	Density changeover	SIM	Set value	Set range
Fine	Switched with the density select key.	FAX mode 46-14	The greater the set value is, the greater the density is, and vice versa.	1 – 99
Super fine	Switched with the density select key.	FAX mode 46-15		
Ultra fine	Switched with the density select key.	FAX mode 46-16		

2. Communication section

Note: These items are factory adjusted when shipping according to FCC standards. Therefore, do not change the setting in the market.

A. Dial test (<FAX mode> SIM 66-13)

(1) Dial pulse transmission test

1) Execute SIM 66-13 in FAX mode.
2) Execute the dial pulse mode according to the instructions on the LCD display.

```
SELECT SIGNAL
1:PULSE  2:DTMF
```

3) Set the make time.

```
INPUT MAKE TIME
(0-15)              _
```

4) Select the dial to be transmitted.
Default: 0123456789#
(After deleting with the clear key, it can be set to any desired value.)
5) Transmission is started from the line.

```
SEND yyPPS xxm s
1:YES 2:NO
```

```
SENDING yyPPS xxm s
```

		SIM	Soft SW	Initial value	Set value	
Dial pulse make time	10 PPS	FAX mode 66-13	SW67-1 – 4	40ms (14)	SW set value: 0 – 15 Make time: 25 – 41ms	1ms step (Binary input)

(2) DTMF signal transmission level adjustment

1) Execute SIM 66-13 in the FAX mode.
2) Execute the DTMF mode according to the instructions on the LCD display.

```
SELECT SIGNAL
1:PULSE  2:DTMF
```

3) Select the signal transmission level.
The signal transmission level is classified into two groups: the high group, and the low group.
Transmission can be made with either of default and the soft SW set value.

```
SELECT HIGH LEVEL
1:DEFAULT 2:SOFT SW.
```

```
SELECT LOW LEVEL
1:DEFAULT 2:SOFT SW.
```

4) The transmission level can be set when the following menu is displayed on the LCD. (et value 1 = 0.5dB change)

```
INPUT VALUE
(0-15)              _
```

(This value is returned to the original value when the simulation mode is canceled.)

5) Select the dial signal to be transmitted.
Default: 0123456789#
(After deleting with the clear key, it can be set to any desired value.)

6) Start transmission from the line.

```
H:xx   L:yy
1:YES 2:NO
```

```
SENDING DTMF
```

xx: High group soft SW set value
yy: Low group soft SW set value

		SIM	Soft SW	Initial value	Set value	
DTMF trans-mission level	High group	(FAX mode) 66-13 (Test only)	SW53-1 – 4	3.5dB (7)	SW set value: 0 – 15 Transmis-sion level: 0 – 7.5db	0.5ms step (Binary input)
	Low group		SW53-5 – 8	3.5dB (7)		

[5] SIMULATIONS

1. Entering the simulation mode

A. Copy mode

The following key operations allow to enter the simulation mode from the copy mode.
Clear key → Interruption key → "0" key → Interruption key → Main code → Start key → Sub code → Start key

B. FAX mode

The following key operations allow to enter the simulation mode from the FAX mode.
Clear key → Interruption key → "0" key → Interruption key → Main code → Start key → Sub code → Start key
Or perform the following key operations:
"9" key → "✱" key → "8" key → "#" key → "7" key

2. Cancel of simulation mode

Press the clear all key to cancel the simulation mode.
Press the interruption key to interrupt the operation and return the sub code entry menu.

3. Simulation list

A. Copy mode <Related to the FAX kit>

Main code	Sub code	Content
22	20	FAX print counter display
24	11	FAX print counter clear
	13	Scan counter clear
26	1	Option switch display
48	1	Main scanning (Front/Rear) direction magnification ratio adjustment (Common in copy, FAX/OC, SPF)
	6	OC mode sub scanning direction magnification ratio adjustment in FAX mode
	7	SPF mode sub scanning direction magnification ratio adjustment in FAX mode

∗ This Service Manual describes only the items related to the FAX kit. For the other items, refer to the Service Manual of the main machine.

B. FAX mode

Main code	Sub code	Content	∗
22	11	Fax related counter display	
	14	Fax ROM ver. Display	
24	14	FAX related counter clear	
46	12	FAX mode density adjustment (AUTO)	
	14	FAX mode density adjustment for each resolution (Fine)	
	15	FAX mode density adjustment for each resolution (Super Fine)	
	16	FAX mode density adjustment for each resolution (Ultra Fine)	
64	02	User switch front print	
	03	Soft switch setting table print	
	04	Dump list print	
66	01	FAX related soft SW setup check/change	
	02	FAX related soft SW clear (Excluding adjustment values)	
	03	FAX PWB memory check	
	04	Signal send mode	
	06	Confidential communication password print	
	07	Image memory contents output	
	08	Voice message clear	A
	10	Image memory clear	
	11	300bps signal send	
	13	Dial test	
	17	DTMF signal send mode	
	22	Handset sound volume adjustment	A
	30	TEL/LIU status change check	
	32	Received data check	
	34	Communication time measurement/check	
	37	Speaker sound volume adjustment	
	38	Time setup/check	

∗ A: Not used

4. Details of simulations

A. Copy mode

Main code	Sub code	Content	Operational description	Initial value	Set range
22	20	FAX print counter display	Used to display the current Fax print counter value. ∗1		
24	11	FAX print counter clear	Used to clear the Fax printer counter. ∗2		
	13	Scan counter clear	Used to clear the scan counter. ∗2		

∗1: Counter display method
To display 12345: "123" (0.75sec) → Blank (0.3sec) → "456" (0.7sec) → Blank (1.0sec) → Repeat
∗2: Display after clearing each counter
"000" (0.7sec) → Blank (0.3sec) → "000" (0.7sec) → Blank (1.0sec) → Repeat

<table>
<tr><th>Main code</th><th>Sub code</th><th>Content</th><th>Operational description</th><th>Initial value</th><th>Set range</th></tr>
<tr><td>26</td><td>1</td><td>Option switch display</td><td>Used to display the installed options with LED on the operation panel.<table><tr><th>Key operation</th><th>Display</th></tr><tr><td>Display switch:
magnification ratio key</td><td><LED lighted when installing an option>
• When “A” is displayed on the display:
Shifter: Paper empty LED
Job separator : JAM LED
SPF: SPF select LED
RSPF: SPF JAM LED
Dehumidifier heater: Main body JAM LED
Duplex mode: Main cassette select LED
Simplex mode: Multi manual feed select LED
• When “b” is displayed on the display:
Cassette (2-stage): No. 2 cassette select LED
Cassette (3-stage): No. 3 cassette select LED
Cassette (4-stage): No. 4 cassette select LED
Memory installation: Paper empty LED
FAX: JAM LED
Printer: Main body JAM LED
ERDH: Main cassette select LED
16CPM: SPF JAM LED
20CPM: SPF select LED
Document sensor: Auto paper select LED</td></tr></table></td><td></td><td></td></tr>
<tr><td rowspan="3">48</td><td>1</td><td>Main scanning (front/rear) direction magnification ratio adjustment (Common in copy, FAX/OC. SPF)</td><td>After warming up, shading is performed and the main scanning (front/rear) direction magnification ratio and OC mode document off-center are adjusted.<table><tr><th>Key operation</th><th>Display</th></tr><tr><td>Adjustment mode select:
Magnification ratio display key
Manual main scanning direction magnification ratio adjustment set value:
Copy quantity set key</td><td>Auto magnification ratio adjustment: Auto LED
Manual magnification ratio adjustment: Manual LED
OC mode document off-center adjustment: Photo LED</td></tr></table></td><td></td><td>1 – 99</td></tr>
<tr><td>6</td><td>OC mode sub scanning direction magnification ratio adjustment in FAX mode</td><td>After warming up, shading is performed and the OC mode sub scanning direction magnification ratio in FAX is adjusted.<table><tr><th>Key operation</th></tr><tr><td>FAX OC mode sub scanning direction magnification ratio: Copy quantity set key</td></tr></table></td><td></td><td>1 – 99</td></tr>
<tr><td>7</td><td>SPF mode sub scanning direction magnification ratio adjustment in FAX mode</td><td>After warming up, shading is performed and the SPF mode sub scanning direction magnification ratio in FAX is adjusted.<table><tr><th>Key operation</th></tr><tr><td>FAX SPF mode sub scanning direction magnification ratio: Copy quantity set key</td></tr></table></td><td></td><td>1 – 99</td></tr>
</table>

B. FAX mode

<table>
<tr><th>Main code</th><th>Sub code</th><th>Content</th><th>Operational description</th><th>Initial value</th><th>Set range</th></tr>
<tr><td rowspan="2">22</td><td>11</td><td>FAX related counter display</td><td>The current Fax related counters are displayed on the LCD.<table><tr><th colspan="2">Display</th></tr><tr><td>Copy quantity</td><td>Transmission counter
Reception counter</td></tr><tr><td>Time</td><td>Accumulated transmission time
Accumulated reception time</td></tr></table></td><td></td><td></td></tr>
<tr><td>14</td><td>FAX ROM Ver. Display</td><td>The currently installed ROM version is displayed on the LCD.<table><tr><th>Display</th></tr><tr><td>FAX ROM: FAX PWB ROM version
CPU: FAX PWB CPU version</td></tr></table></td><td></td><td></td></tr>
<tr><td>24</td><td>14</td><td>FAX related counter clear</td><td>The current FAX related counters are cleared.
• Transmission counter (Time, number of sheets)
• Reception counter (Time, number of sheets)</td><td></td><td></td></tr>
<tr><td rowspan="4">46</td><td>12</td><td>FAX mode density adjustment (Overall mode)</td><td>After warming up, shading is performed and the currently set density level (Fine mode, auto exposure) is displayed. For the adjustment procedures, refer to the previous descriptions.</td><td></td><td></td></tr>
<tr><td>14</td><td>FAX mode density adjustment for each resolution (Fine)</td><td>After warming up, shading is performed and the currently set density level (Fine mode) is displayed. For the adjustment procedures, refer to the previous descriptions.</td><td></td><td></td></tr>
<tr><td>15</td><td>FAX mode density adjustment for each resolution (Super fine)</td><td>After warming up, shading is performed and the currently set density level (Super fine mode) is displayed. For the adjustment procedures, refer to the previous descriptions.</td><td></td><td></td></tr>
<tr><td>16</td><td>FAX mode density adjustment for each resolution (Ultra fine)</td><td>After warming up, shading is performed and the currently set density level (Ultra fine mode) is displayed. For the adjustment procedures, refer to the previous descriptions.</td><td></td><td></td></tr>
<tr><td rowspan="3">64</td><td>02</td><td>User switch table print</td><td>Used to print the currently set user switch table.</td><td></td><td></td></tr>
<tr><td>03</td><td>Soft switch setup table print</td><td>Used to print the currently set soft switch. (FAX send counter, communication time, option status, ROM version)</td><td></td><td></td></tr>
<tr><td>04</td><td>Dump list print</td><td>Used to print the SRAM contents as a dump list in blocks of 0 – 127.
Select block 0 – 127 and press the START key to start printing.</td><td></td><td></td></tr>
<tr><td rowspan="2">66</td><td>01</td><td>FAX related soft SW setup check/change</td><td>Used to check and change the current soft switch setup.</td><td></td><td></td></tr>
<tr><td>02</td><td>FAX related soft SW clear (Excluding the adjustment values)</td><td>Used to set the following soft SW to the default.
<Line signal adjustment value>
• Signal send level (SW5-5 – 8)
• DTMF send level (High group) (SW53-1 – 4)
• DTMF send level (Low group)(SW53-5 – 8)
• Make time (10PPS) (SW67-1 – 4)</td><td></td><td></td></tr>
<tr><td>03</td><td>FAX PWB memory check</td><td>Used to check each memory installed on the FAX PWB.<table><tr><th>Key operation</th><th>Display</th></tr><tr><td><Memory>
1: DRAM
2: SRAM
3: FLASH
4: OPTION
5: PAGE</td><td><Error status>
SUM NG: Check sum error
A-BUS NG: Address bus error
DATA NG: Data check error
D-BUS NG: Data bus error
ERASE NG: Data erase error</td></tr></table></td><td></td><td></td></tr>
</table>

<table>
<tr><td rowspan="5">66</td><td>04</td><td></td><td>● The following signals are sent to the line and the main body speaker.
<table>
<tr><th colspan="3">Display/Key operation</th></tr>
<tr><td><Signal send level>
0db: Signals are sent in 0db.
Soft SW: Signals are sent in the level set with the soft SW.</td><td><Send signals>
01: No signal (CMLON)
02: 33600bps (V34)
03: 31200bps (V34)
04: 28800bps (V34)
05: 26400bps (V34)
06: 24000bps (V34)
07: 21600bps (V34)
08: 19200bps (V34)
09: 16800bps (V34)
10: 14400bps (V34)
11: 12000bps (V34)
12: 9600bps (V34)
13: 7200bps (V34)
14: 4800bps (V34)
15: 2400bps (V33)
16: 14400bos (V33)
17: 12000bps (V33)</td><td>18: 14400bps (V17)
19: 12000bps (V17)
20: 9600bps (V17)
21: 7200bps (V17)
22: 9600bps (V29)
23: 7200bps (V29)
24: 4800bps (V27ter)
25: 2400bps (V27ter)
26: 300bps (FLAG)
27: 2100Hz (CED)
28: 1100Hz (CNG)
29: 300bps (V21)
30: 2100Hz (ANSam)
31: Pseudo ring sound
32: Voice message silent
33: Ring back tone silent
34: Dial pulse make
35: Dial pulse break</td></tr>
</table>
● The send signals are as follows:
01: No signal is sent.
26: 7eH flag signal
27, 28, 30: Tone signal
31: Pseudo ringer sound (With the On-hook key pressed)
32: Voice message silent <Not used>
33: Ring back tone silent <Not used>
34: Dial pulse make
Under the state where dial pulses can be sent to the line, the make state is kept.
35: Dial pulse break
Under the state where dial pulses can be sent to the line, the break state is kept.
Other than the above: FFH
● The signal send level is selectable between 0db or the soft SW set value. Since, however this setup is not required for pseudo ringer sound, voice message (silent), ring back tone (silent), and dial pulse make/break., the selection menu does not appear. (For 01, 31 to 35, selection between 0db and the soft SW set value cannot be made.)
● Signal send is continued until an interruption command is outputted.
● The signal send level is returned to the soft SW set value before execution of this mode when this mode is terminated.</td><td></td><td></td></tr>
<tr><td>06</td><td>Confidential communication password print</td><td>Used to print the currently set confidential communication password.</td><td></td><td></td></tr>
<tr><td>07</td><td>Image memory content output</td><td>Used to print all image data stored in the image memory. The following image data are also outputted.
● Image data received in a confidential communication remote send image data read in the memory
Note: Image data are cleared after being outputted.</td><td></td><td></td></tr>
<tr><td>08</td><td>Voice message send

<Not used></td><td>Used to send the voice reply message.
<table>
<tr><td><Sound volume setup>
LARGE: Signals are sent in the LARGE sound volume level.
Soft SW: Signals are sent in the level set with the soft switch 70-1.</td><td><Message>
1: “Wait for a moment.”
2: “No one is around the phone. For FAX send, please press the START button. (FAX/TEL reply message)
3: Reserved sound</td></tr>
</table></td><td></td><td></td></tr>
<tr><td>10</td><td>Image memory clear</td><td>Used to clear all data stored in the image memory.
The following data are also cleared.
• Image data received in confidential communication
• The management table is also initialized.</td><td></td><td></td></tr>
</table>

<table>
<tr><td>66</td><td>11</td><td>300bps signal send</td><td>Used to send signals in 300bps.
<table><tr><th colspan="2">Display/Key operation</th></tr><tr><td><Signal send level>
0db: Signals are sent in 0db.
Soft SW: Signals are sent in the level set with the soft switch.</td><td><Signal pattern>
1: No signal
2: 111111
3: 111110
4: 000000
5: 010101
6: 000001</td></tr></table></td><td></td><td></td></tr>
<tr><td></td><td>13</td><td>Dial test</td><td>Used to check dial pulses (10PPS), check the DTMF signal send, adjust the dial pulse make time, and adjust the DTMF signal send level. For adjustment procedures, refer to the previous descriptions.
<table><tr><td><Signals>
Dial pulse (10PPS)
DTMF signal</td><td></td></tr></table></td><td></td><td></td></tr>
<tr><td></td><td>17</td><td>DTMF signal send</td><td>Used to send the DTMF signal. When another dial number is pressed during DTMF signal send, the DTMF signal corresponding to the pressed dial number is sent.
<table><tr><th colspan="2">Display/Key operation</th></tr><tr><td><Signal send level>
0db: Signals are sent in 0db.
Soft SW: Signals are sent in the level set with the soft switch.</td><td><Send dial number>
10-key</td></tr></table></td><td></td><td></td></tr>
<tr><td></td><td>22</td><td>Handset sound volume adjustment

<Not used></td><td>Used to set the handset sound volume.
<table><tr><th>Key operation</th></tr><tr><td>1: Small
2: Large</td></tr></table></td><td></td><td></td></tr>
<tr><td></td><td>30</td><td>TEL/LIU status change check</td><td>Used to display the following status change of TEL/LIU.
• Polarity reverse relay
• External telephone hook switch relay
<table><tr><th colspan="3">Display</th></tr><tr><th>Signal</th><th>LOW</th><th>HIGH</th></tr><tr><td>HS1</td><td>ON</td><td>OFF</td></tr><tr><td>HS2</td><td>ON</td><td>OFF</td></tr><tr><td>EXHS</td><td>ON</td><td>OFF</td></tr></table></td><td></td><td></td></tr>
<tr><td></td><td>32</td><td>Reception data check</td><td>Used to check the fixed data received from the line. Since a nit to send the fixed data is required, this mode is not required in this market.</td><td></td><td></td></tr>
<tr><td></td><td>34</td><td>Communication time measurement display</td><td>Used to make transmission and reception tests, measure the time required for transmission (reception) of image data in the communication, and inform of it.
• Measurement range
Transmission: From sending of the flag signal before sending of the image data to sending of RCP frame.
Reception: From reception of the flag signal before reception of the image data to reception of RCP frame.
The communication test is performed in the standard display. After completion of communication, the time measured in this mode is checked.
• The setup items in transmission are as follows:
• Communication means: memory transmission
• Image quality: Standard
• Density: Light
ECM: ON
Transmitter record: OFF</td><td></td><td></td></tr>
<tr><td></td><td>37</td><td>Speaker sound volume adjustment</td><td>Used to set the speaker sound volume.
<table><tr><th>Key operation</th></tr><tr><td>0: No sound
1: Small
2: Medium
3: Large</td></tr></table></td><td></td><td></td></tr>
<tr><td></td><td>38</td><td>Time setup/check</td><td>Used to display and correct the time (year, month, day, day of week, hour, minute) installed in the FAX PWB.</td><td></td><td></td></tr>
</table>

[6] SOFTWARE SWITCH DESCRIPTIONS

1. Software switch changing procedure

1) Execute SIM 66-01 in the FAX mode.
2) Select “1.YES” in the FAX soft SW setup.
3) FAX soft SW No. input
   XX (2 digits: 10-keyinput) + START key
4) Select “1.YES” in the Soft SW content check.
5) Press the bit No. to be changed, and the bit No. is high-lighted.
6) Select “1.YES” in the confirmation menu of change.
7) The change is completed, and the display returns to the soft SW select menu.

2. Details

When a value which is outside of the specified range is entered, the item is automatically set to the default.
Never change the switches which are “Reserved”.

SW NO.	Data NO.	Item	Switch selection and contents of functions	Initial value		User program No.	Remark
SW1	1	Image quality priority selection	Used to select the image quality setup (LED) among “Ultra fine”, “Super fine”, “Fine”, and “Standard” after pressing C/A key or in auto clear procedure SW1 Bit No. 1 2 Standard 0 0 Fine 0 1 Super fine 1 0 Ultra fine 1 1	Standard	0	151	
	2				0		
	3	Reserved			0		
	4	Auto/manual default setup	Used to select Auto/Manual reception mode when turning on the power. (When no external telephone is connected, do not select Manual. However, setup is possible and reception can be made by on-hook. 1: Manual reception / 0: Auto reception	Auto reception	0		Manual can be set only when an external telephone is connected.
	5	Send request protection	Used to set enable/disable of the confidential function (inhibition against erroneous transmission) during send request communication (remote transmission).The confidential function is performed with identification of the code numbers which is registered in the machine and the other party machine. Sender No. ← → Send request allow No. or system No. ← → ID No. 1: Not protected / 0: Protected	Protected	0	118	
	6	Reduction send mode	Used to set whether the transmitted document is received in reduction size or both ends of recording paper are cut when the transmitted document width is greater than the recording paper width. 1: Standard / 0: Reduction	Reduction	0	124	
	7	Sent document print in memory send error	Used to set Print/Not print part of the sent document in the transmission result table in case of a memory transmission error. For confidential transmission, however, no output is made. 1: Not print / 0: Print	Print	0	138	
	8	Reserved			0		

<table>
<tr><th>SW NO.</th><th>Data NO.</th><th>Item</th><th>Switch selection and contents of functions</th><th colspan="2">Initial value</th><th>User program No.</th><th>Remark</th></tr>
<tr><td rowspan="13">SW2</td><td>1</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>2</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>3</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>4</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>5</td><td rowspan="4">Remote select No. setup</td><td rowspan="4">Used to set the number for remote select reception from an external telephone with binary input. However, the remote select numbers “x∗” and “∗” are fixed.
For an input over “10”, the same operation as the initial value of “5” is performed.
<table><tr><td>SW2 Bit No.</td><td>1 2 3 4 5 6 7 8</td></tr><tr><td>Set range</td><td>0 – 9 (Binary input)</td></tr></table></td><td rowspan="4">5</td><td>0</td><td rowspan="4">108</td><td rowspan="4">When a value in the range of 10 – 15 is set, set to “5.”</td></tr>
<tr><td>6</td><td>1</td></tr>
<tr><td>7</td><td>0</td></tr>
<tr><td>8</td><td>1</td></tr>
<tr><td>SW3</td><td>1</td><td rowspan="5">Density default setup</td><td rowspan="5">Used to set the density (LED) after pressing C/A key or in auto clear operation to Auto, Light, Slightly light, Medium, Slightly data, and Dark.
<table><tr><td>SW Bit No.</td><td>1 2 3 4 5</td></tr><tr><td>Auto</td><td>0 0 0 0 0</td></tr><tr><td>Light</td><td>1 0 0 0 0</td></tr><tr><td>Slightly light</td><td>0 1 0 0 0</td></tr><tr><td>Medium</td><td>0 0 1 0 0</td></tr><tr><td>Slightly dark</td><td>0 0 0 1 0</td></tr><tr><td>Dark</td><td>0 0 0 0 1</td></tr></table></td><td rowspan="5">Auto</td><td></td><td rowspan="5">153</td><td rowspan="5"></td></tr>
<tr><td>2</td><td>0</td></tr>
<tr><td>3</td><td>0</td></tr>
<tr><td>4</td><td>0</td></tr>
<tr><td>5</td><td>0</td></tr>
<tr><td></td><td>6</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>7</td><td rowspan="2">Size specification</td><td rowspan="2">Used to set the source of judgement of size specification (AB series or inch series).
<table><tr><td>SW Bit No.</td><td>7 8</td><td rowspan="4">If the machine information is uncertain when set to “Follows the machine information”, the metric size is effective.</td></tr><tr><td>Inch size</td><td>1 0</td></tr><tr><td>Follows the machine information.</td><td>0 1</td></tr><tr><td>Follows the machine information.</td><td>1 1</td></tr></table></td><td rowspan="2">Follows the machine information.</td><td>∗</td><td rowspan="2"></td><td rowspan="2"></td></tr>
<tr><td></td><td>8</td><td>1</td></tr>
<tr><td>SW4</td><td>1</td><td rowspan="4">Recall interval in case of a communication error</td><td rowspan="4">Used to set recall interval after disconnection of communication due to a communication error in memory transmission. The set range is 0 to 15 min in the increment of 1 min by binary input. When set to 0, recall is made immediately after disconnection. However, the time interval set by SW21 (Interval between the end of a communication and the next call) is taken.
<table><tr><td>SW4 Bit No.</td><td>1 2 3 4</td><td rowspan="2">0: Immediate recall after disconnection.</td></tr><tr><td>Set value</td><td>0 – 15 (Binary input)</td></tr></table></td><td rowspan="4">1 min</td><td>0</td><td rowspan="4">113</td><td rowspan="4"></td></tr>
<tr><td>2</td><td>0</td></tr>
<tr><td>3</td><td>0</td></tr>
<tr><td>4</td><td>1</td></tr>
<tr><td></td><td>5</td><td rowspan="4">Recall interval in case of busy state</td><td rowspan="4">Used to set recall interval after disconnection of communication due to the busy state of the other party or no response. The set range is 0 to 15 min in the increment of 1 min by binary input. When set to 0, recall is made after 3 min.
<table><tr><td>SW4 Bit No.</td><td>5 6 7 8</td></tr><tr><td>Set value</td><td>0 – 15 (Binary input)</td></tr></table></td><td rowspan="4">3 min</td><td>0</td><td rowspan="4">111</td><td rowspan="4">When “0000” is tried to be set, “0011” is set.</td></tr>
<tr><td></td><td>6</td><td>0</td></tr>
<tr><td></td><td>7</td><td>1</td></tr>
<tr><td></td><td>8</td><td>1</td></tr>
</table>

SW NO.	Data NO.	Item	Switch selection and contents of functions	Initial value		User program No.	Remark
SW5	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Signal send level	Used to set the signal send level from the Modem. The set range is 0 – 15 in the increment of 1dBm by binary input. The value becomes – (Set value) – 5 dBm to the actual in theory. SW5 Bit No. 5 6 7 8 Set value 0 – 15 (Binary input)	7 (–12 dBm)	0		
	6				1		
	7				1		
	8				1		
SW6	1	ECM	Used to set whether ECM (Error Correction Mode) is performed or not. When, however, SW52-7 (V.34 mode function) is set to OFF, or when SW52-7(V.34 mode function is set to ON and the transmission is not the super G3 transmission, ECM Disable setup is effective. This is because the ECM function is indispensable in a transmission other than super G3 transmission in V.34 mode and the other party machine may perform checking. With SW52-7 (V.34 mode function) is ON and this reception function is disabled. 1: YES 0: NO	YES	1		Setup in communication other than V.34
	2	ANSam (CED) signal send	Used to set whether ANSam (CED) signal send is made or not. **This is effective only when SW52-7** (V.34 mode function) is OFF. This is because ANSam signal send is indispensable in V.34 mode. (This machine uses the ANSam signal also as the CED signal.) 1: YES 0: NO	YES	1		Effective only when V.34 mode function are disable.
	3	CSI send	Used to set whether CSI signal send is perform or not. The CSI signal includes the transmitter No. 1: YES 0: NO	YES	1		
	4	DIS reception check in G3 send	Used to set whether DIS reception is checked or not in G3 mode. 1: Twice 0: Once when receiving NSF, twice when receiving DIS	Once when receiving NSF, twice when receiving DIS	0		
	5	None-modulation carrier in V.29 send	Used to set whether non-modulation carriers are sent or not in V.29 transmission. 1: YES 0: NO	NO	0		
	6	EOL detection timer	Used to set the detection timer of EOL (End Of Line) in phase C reception. 1: 25 sec 0: 13 sec	13 sec	0		
	7	Countermeasure for echo in reception (CED toner send interval)	Used to set the time interval from CED sending to FSK signal sending of DIS. 1: 500 ms 0: 75 ms	75 ms	0		If either of SW6-7 or SW6-8 is effective, open of the line after completion of communication is delayed by 1.5 sec.
	8	Countermeasure for echo in transmission	Used to set the time interval from DIS reception to DCS signal sending. 1: 500 ms 0: 200 ms	200 ms	0		

SW NO.	Data NO.	Item	Switch selection and contents of functions	Initial value		User program No.	Remark
SW7	1	MH fixing	Used to fix the image data compression method in transmission to MH. However, when SW52-7 (V.34 mode function) is OFF or when SW52-7 (V.34 mode function) is ON in transmission, MH fixing is effective. This is because MMR function is indispensable in V.34 mode and the other party machine may perform checking. When SW52-7 (V.34 mode function) is ON in reception, this function is disabled. 1: YES / 2: NO (Depends on the other party machine.)	NO	0		Setup in a communication other than V.34
	2	Reserved			0		
	3	Busy tone detection	Used to set whether the busy tone signal is detected or not in calling or pseudo calling of external telephone. 1: YES / 2: NO	YES	1		
	4	Reserved			0		
	5	Reserved			0		
	6	Max. length of reception	Used to set the max. length of reception. 1. No limit / 0: 1.5m	1.5 m	0		Max. length 1m in transmission is monitored with MCU.
	7	Modem speed fixing in reception	Used to set the start speed of reception procedure when receiving from an other party other than V.34. Reception procedure is made in the set speed. SW7 Bit No. 7 8 No fixing 0 0 V.29 – 9600 bps 0 1 V.27ter – 4800 bps 1 0 V.17 – 14400 bps 1 1	No fixing	0		Setup in a communication other than V.34
	8				0		
SW8	1	Memory transmission/Direct transmission default setup	Used to set whether the transmission mode is memory transmission or direct transmission after pressing C/A key or in auto clear operation. 1. direct transmission / 0: Memory transmission	Memory transmission	0	152	
	2	Memory reception	When set to 0, reception is not made in auto reception under the following state: Cover open, unit error (toner, drum, developing section error), paper exit tray full, recording paper jam, document jam, no print paper. When set to 1, memory reception is enabled. 1. YES / 0: NO	YES	1		
	3	Reserved			0		
	4	Reserved			0		
	5	Remote reception direction	Used to set whether remote select function is used or not. 1. YES / 0: NO	YES	1		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		

SW NO.	Data NO.	Item	Switch selection and contents of functions	Initial value		User program No.	Remark
SW9	1	Communication record total time/total number of sheets print	Used to set whether total communication time and total number of sheets are recorded or not on the communication record table. 1. YES / 0: NO	YES	1		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW10	1	Communication time count (Image)	Used to measure the communication time in phase C. However, it is the communication time in the latest phase C. (Unit: msec) 1. YES / 0: NO	YES	1		
	2	Transmitter TEL number registration	Used to set Enable/Disable of registered transmitter telephone number change. 1: Disable / 0: Enable	Enable	0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			1		
	8	Reserved			0		
SW11	1	Reserved			1		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW12	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	CI detection	Used to set the frequency to detect CI signal which is the calling signal as follows: SW12 Bit No. 6: 4 Sine wave 0, 3 Sine wave 1, 2 Sine wave 0 / SW12 Bit No. 7: 4 Sine wave 0, 3 Sine wave 0, 2 Sine wave 1	4 Sine wave	0		When set to “11”, set to “00”.
	7				0		
	8	Reserved			0		

<table>
<tr><th>SW NO.</th><th>Data NO.</th><th>Item</th><th>Switch selection and contents of functions</th><th>Initial value</th><th></th><th>User program No.</th><th>Remark</th></tr>
<tr><td rowspan="10">SW13</td><td>1</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>2</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>3</td><td rowspan="2">Call ring sound volume</td><td rowspan="2">Used to set the reception sound volume regardless of handset.<table><tr><td>SW13 Bit No.</td><td>3 4</td></tr><tr><td>Silent</td><td>0 0</td></tr><tr><td>Small</td><td>0 1</td></tr><tr><td>Medium</td><td>1 0</td></tr><tr><td>Large</td><td>1 1</td></tr></table></td><td rowspan="2">Medium</td><td>1</td><td rowspan="2">104</td><td rowspan="2"></td></tr>
<tr><td>4</td><td>0</td></tr>
<tr><td>5</td><td>Reserved</td><td></td><td></td><td>1</td><td></td><td></td></tr>
<tr><td>6</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>7</td><td>Interface data output</td><td>Used to set whether the received document is outputted from the interface direction station when interface broadcasting direction is received.<table><tr><td>1: YES</td><td>0: NO</td></tr></table></td><td>YES</td><td>1</td><td></td><td></td></tr>
<tr><td>8</td><td>Interface broadcasting function</td><td>Used to set whether interface broadcasting transmission is performed when receiving the interface broadcasting direction from the other party or the interface broadcasting direction is not received from the other party. When this function is set to 0 (Inhibited), the interface broadcasting direction can be transmitted.<table><tr><td>1: Enable</td><td>0: Disable</td></tr></table></td><td>Enable</td><td>1</td><td></td><td>Interface direction reception setup</td></tr>
<tr><td rowspan="8">SW14</td><td>1</td><td rowspan="4">V.34 mode transmission speed</td><td rowspan="4">Used to set the transmission speed when starting communication in V.34 mode. When set to 2400 bps, SW58 No. 1 – 6 must be changed to 2400 only.<table><tr><td>SW14 Bit No.</td><td>1 2 3 4</td><td>SW14 Bit No.</td><td>1 2 3 4</td></tr><tr><td>2400 bps</td><td>0 0 0 0</td><td>19200 bps</td><td>1 0 0 0</td></tr><tr><td>2400 bps</td><td>0 0 0 1</td><td>21600 bps</td><td>1 0 0 1</td></tr><tr><td>4800 bps</td><td>0 0 1 0</td><td>24000 bps</td><td>1 0 1 0</td></tr><tr><td>7200 bps</td><td>0 0 1 1</td><td>26400 bps</td><td>1 0 1 1</td></tr><tr><td>9600 bps</td><td>0 1 0 0</td><td>28800 bps</td><td>1 1 0 0</td></tr><tr><td>12000 bps</td><td>0 1 0 1</td><td>31200 bps</td><td>1 1 0 1</td></tr><tr><td>14400 bps</td><td>0 1 1 0</td><td>33600 bps</td><td>1 1 1 0</td></tr><tr><td>16800 bps</td><td>0 1 1 1</td><td>33600 bps</td><td>1 1 1 1</td></tr></table></td><td rowspan="4">33600 bps</td><td>1</td><td rowspan="4"></td><td rowspan="4">When set to 2400 bps, SW58 No. 1 – 6 must be set accordingly.</td></tr>
<tr><td>2</td><td>1</td></tr>
<tr><td>3</td><td>1</td></tr>
<tr><td>4</td><td>0</td></tr>
<tr><td>5</td><td rowspan="4">V.34 mode reception speed</td><td rowspan="4">Used to set the reception speed when starting reception in V.34 mode. When set to 2400 bps, SW58 No. 1 – 6 must be changed to 2400 only.<table><tr><td>SW14 Bit No.</td><td>5 6 7 8</td><td>SW14 Bit No.</td><td>5 6 7 8</td></tr><tr><td>2400 bps</td><td>0 0 0 0</td><td>19200 bps</td><td>1 0 0 0</td></tr><tr><td>2400 bps</td><td>0 0 0 1</td><td>21600 bps</td><td>1 0 0 1</td></tr><tr><td>4800 bps</td><td>0 0 1 0</td><td>24000 bps</td><td>1 0 1 0</td></tr><tr><td>7200 bps</td><td>0 0 1 1</td><td>26400 bps</td><td>1 0 1 1</td></tr><tr><td>9600 bps</td><td>0 1 0 0</td><td>28800 bps</td><td>1 1 0 0</td></tr><tr><td>12000 bps</td><td>0 1 0 1</td><td>31200 bps</td><td>1 1 0 1</td></tr><tr><td>14400 bps</td><td>0 1 1 0</td><td>33600 bps</td><td>1 1 1 0</td></tr><tr><td>16800 bps</td><td>0 1 1 1</td><td>33600 bps</td><td>1 1 1 1</td></tr></table></td><td rowspan="4">33600 bps</td><td>1</td><td rowspan="4"></td><td rowspan="4">When set to 2400 bps, SW58 No. 1 – 6 must be set accordingly.</td></tr>
<tr><td>6</td><td>1</td></tr>
<tr><td>7</td><td>1</td></tr>
<tr><td>8</td><td>0</td></tr>
</table>

<table>
<tr><th>SW NO.</th><th>Data NO.</th><th>Item</th><th>Switch selection and contents of functions</th><th colspan="2">Initial value</th><th>User program No.</th><th>Remark</th></tr>
<tr><td rowspan="16">SW15</td><td>1</td><td>Lower limit of busy tone detection time</td><td>Used to set the lower limit of busy tone detection time (ON time).
1: 350 ms | 0: 250 ms</td><td>250 ms</td><td>0</td><td></td><td></td></tr>
<tr><td>2</td><td>Upper limit of busy tone detection time</td><td>Used to set the upper limit of busy tone detection time (ON time).
1: 650 ms | 0: 750 ms</td><td>750 ms</td><td>0</td><td></td><td></td></tr>
<tr><td>3</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>4</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>5</td><td rowspan="4">Modem speed (other than V.33 mode)</td><td rowspan="4">Used to set the communication start speed other in a mode other than V.34 mode. In areas of poor communication conditions, this setup is used to reduce the communication speed in advance.
SW15 Bit No. 5 6 7 8 | SW15 Bit No. 5 6 7 8
V.27 2400 bps 0 0 0 0 | V.17 14.4 kbps 1 0 0 0
V.29 9600 bps 0 0 0 1 | V.17 9600 bps 1 0 0 1
V.27 4800 bps 0 0 1 0 | V.17 12.0 kbps 1 0 1 0
V.29 7200 bps 0 0 1 1 | V.17 7200 bps 1 0 1 1
V.33 14.4 kbps 0 1 0 0 | ★ 1 1 0 0
★ 0 1 0 1 | ★ 1 1 0 1
V.33 12.0 kbps 0 1 1 0 | ★ 1 1 1 0
★ 0 1 1 1 | ★ 1 1 1 1</td><td rowspan="4">V.17 14.4 kbps</td><td>1</td><td rowspan="4"></td><td rowspan="4">For the bits marked with ∗, set to V.17 14.4 kbps.</td></tr>
<tr><td>6</td><td>0</td></tr>
<tr><td>7</td><td>0</td></tr>
<tr><td>8</td><td>0</td></tr>
<tr><td>SW16</td><td>1</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>2</td><td>External telephone connection</td><td>Used to set whether an external telephone is connected or not.
1: YES | 0: NO</td><td>YES</td><td>1</td><td>106</td><td></td></tr>
<tr><td>3</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>4</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>5</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>6</td><td>Rotation transmission select (8.5″ × 11″ → 8.5″ × 11″R)</td><td>Used to set whether 8.5″ × 11″ document is sent as 11″ × 17″ width (8.5″ × 11″) or it is sent as 8.5″ × 11″R by rotating read images.
1: YES | 0: NO</td><td>YES</td><td>1</td><td>125</td><td></td></tr>
<tr><td>7</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>8</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>SW17</td><td>1</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>2</td><td rowspan="2">Output conditions setup</td><td rowspan="2">Used to set the size of paper to output when a document is received.
SW17 Bit No. 2 3
ABD 0 0
ABC 1 0
A: Optimum size output (Received size)
B: Larger than the optimum
C: Divided output
D: Reduced output</td><td rowspan="2">ABD</td><td>0</td><td rowspan="2">133</td><td rowspan="2">When set to “11” or “01”, set to “00” (ABD).</td></tr>
<tr><td>3</td><td>0</td></tr>
<tr><td>4</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>SW17</td><td>5</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>6</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>7</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>8</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
</table>

<table>
<tr><th>SW NO.</th><th>Data NO.</th><th>Item</th><th>Switch selection and contents of functions</th><th colspan="2">Initial value</th><th>User program No.</th><th>Remark</th></tr>
<tr><td rowspan="10">SW18</td><td>1</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>2</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>3</td><td rowspan="2">Reception size specification (Shows reception capacity.)</td><td rowspan="2">Used to set the receivable document width which is informed the other party when receiving a communication. The setup items are as follows:
<table><tr><td>SW18 Bit No.</td><td>3 4</td></tr><tr><td>By the installed cassette</td><td>0 0</td></tr><tr><td>215 mm</td><td>1 0</td></tr><tr><td>255 mm (215 & 255 mm)</td><td>0 1</td></tr><tr><td>303 mm (215 & 255 & 303 mm)</td><td>1 1</td></tr></table></td><td rowspan="2">By the installed cassette</td><td>0</td><td rowspan="2"></td><td rowspan="2">∗1: Refer to the following descriptions.</td></tr>
<tr><td>4</td><td>0</td></tr>
<tr><td>5</td><td>11″ reception capacity setup</td><td>Used to set the recording width of DIS signal when the set paper size is Ledger (11 × 17, main scanning 279.4mm, sub scanning 4318mm), Letter R (8.5 × 11R, main scanning 215.9mm, sub scanning 279.4mm), Letter (8.5 × 11, main scanning 279.4mm, sub scanning 215.9mm) or Legal (8.5 × 14, main scanning 215.4mm, sub scanning 355.6mm).
<table><tr><td>1: 255/215 mm</td><td>0: 303/255/215 mm</td></tr></table>For each setup, be careful of the following items.
<255mm and 215mm>
When the other party sends documents of 11″ width or A3 width, the size is automatically reduced to 255mm in the other party's machine.
<303mm, 255mm, and 215mm>
When the other party sends documents of 303mm width, and when reception is made on Ledger, Letter, or Letter R (rotation print) paper, the data over the paper size are cut out. (When printed on Legal paper in rotation printing, the data are not cut.) In this case, if the other party's machine is of inch spec and sends documents of 11″ width, there is no problem. If the other party's machine is of AB spec and sends document of A3 width, data are cut.</td><td>303/255/ 215 mm</td><td>0</td><td></td><td>∗2 Refer to the following descriptions.</td></tr>
<tr><td>6</td><td>Output method in A3 width reception</td><td>Used to set the output method when A3 width data are sent from the other party's machine.
<table><tr><td>1: Data of A3 width is printed.</td><td>0: Data of 11″ width is printed.</td></tr></table></td><td>11″ width print</td><td>0</td><td>126</td><td></td></tr>
<tr><td>7</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>8</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td rowspan="2">SW19</td><td>1</td><td>Protocol monitor</td><td>Used to set whether the protocol monitor of one communication is printed or not.
<table><tr><td>1: YES</td><td>0: NO</td></tr></table></td><td>NO</td><td>0</td><td></td><td></td></tr>
<tr><td>2</td><td>Send reservation interruption enable in recall mode</td><td>Used to set whether send reservation interruption is allowed or not in standby for recall.
<table><tr><td>1: Enable</td><td>0: Disable</td></tr></table></td><td>Enable</td><td>1</td><td>115</td><td></td></tr>
</table>

∗1: When "By the installed cassette" is selected, the max. recording size on the tray which is set to ON in the recording paper tray selection (SW27-2 – 5) becomes effective.
When all of the recording paper tray selection (SW27-2 – 5) are set to OFF, the reception of A3 (A4, B4, A3) is allowed. (The soft SW is not changed.)

∗2: When 11″ paper which allows reception of FAX is set, setting of this SW informs of the reception capability.
If the setting of SW18-3 to -4 (Reception size designation) is set to "By the installed cassette", this setting has the priority.

SW NO.	Data NO.	Item	Switch selection and contents of functions	Initial value		User program No.	Remark
SW19	3	Output only in case of protocol monitor error	Effective only when SW19-1 is set to 1 (YES). Used to set whether protocol monitor is outputted only when a communication is not completed normally due to a communication error or it is outputted after completion of every communication. 1: Only in case of an error / 0: After completion of every communication (All output)	NO	0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Time designation 1 of communication record table	Used to set whether the communication record table is printed at the designated time 1 or not. 1: Enable / 0: Disable	Disable	0	139	
	8	Time designation 2 of communication record table	Used to set whether the communication record table is printed at the designated time 2 or not. 1: Enable / 0: Disable	Disable	0	139	
SW20	1	Line sound monitor range	Used to set the line sound monitor range when the line monitor function is used. When set to “Until NSF signal send/receive”, monitoring is made until the NSF signal is sent or received. When set to “All”, monitoring is made for all until the line is disconnected. SW20 Bit No. 1 2 OFF 0 0 Until NSF signal send/receive 0 1 All 1 0	OFF	0		When set to “11”, set to “00”.
	2				0		
	3	Line monitor display	Used to set whether the communication speed and the reception level are displayed on the LCD or not. 1: YES / 0: NO	NO	0		
	4	Operation panel key sound	Used to set whether the key click sound of FAX related keys are made or not when operating in the FAX mode. 1: Not ring / 0: Ring	Ring	0		
	5	Receivable memory capacity left	Used to set the remaining memory capacity for acceptance of call. (This is not the memory judgement level during reception.) 1: 64Kbyte / 0: 128Kbyte	128 Kbyte	0		
	6	Memory over during reception	Used to set whether the received data are outputted or destroyed when memory is over during reception. 1: Output / 0: Not output	Output	1		
	7	Reserved			0		
	8	Reserved			0		

SW NO.	Data NO.	Item	Switch selection and contents of functions	Initial value		User program No.	Remark
SW21	1	Interval between the end of a communication and the next call	Used to set the time interval between the end of a communication and a call for the next communication. SW21 Bit No. 1 2 3 4 5 6 7 8 Set range: 0 – 255 sec in the increment of 1 sec (Binary input)	1 sec	0		
	2				0		
	3				0		
	4				0		
	5				0		
	6				0		
	7				0		
	8				1		
SW22	1	Reserved			0		
	2	Reserved			1		
	3	Reserved			1		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			1		
	7	Reserved			1		
	8	Reserved			1		
SW23	1	Reserved			0		
	2	Reserved			1		
	3	Reserved			1		
	4	Reserved			1		
	5	Reserved			1		
	6	Reserved			0		
	7	Reserved			1		
	8	Reserved			0		
SW24	1	Reserved			1		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Received document output setup	Used to set whether all received documents are outputted at a time after completion of reception or each document is outputted every time when it is received. 1: All received documents are outputted at a time after completion of 0: Each document is outputted every time when it is received.	Each document is outputted every time when it is received.	0		
	7	Reserved			0		
	8	Auto reduction print	Used to set whether auto reduction print is made or not when the received document size is greater than the fixed size and smaller than the length of auto reduction line number setup. When auto reduction print is set to Enable, larger or smaller documents are printed in the fixed size. 1: Enable 0: Disable	Enable	1	132	

<table>
<tr><th>SW NO.</th><th>Data NO.</th><th>Item</th><th>Switch selection and contents of functions</th><th colspan="2">Initial value</th><th>User program No.</th><th>Remark</th></tr>
<tr><td rowspan="8">SW25</td><td>1</td><td rowspan="4">Auto reduction ratio setup</td><td rowspan="4">Used to set the auto reduction ratio when “Auto reduction print” is set to Enable. The set value is the min. reduction ratio.
<table><tr><td>SW25 Bit No.</td><td>1 2 3 4</td></tr><tr><td>Set range</td><td>0 – 15% (Binary input)</td></tr></table></td><td rowspan="4">10%</td><td>1</td><td rowspan="4"></td><td rowspan="4"></td></tr>
<tr><td>2</td><td>0</td></tr>
<tr><td>3</td><td>1</td></tr>
<tr><td>4</td><td>0</td></tr>
<tr><td>5</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>6</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>7</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>8</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td rowspan="8">SW26</td><td>1</td><td>Read end sound</td><td>Used to set whether read end sound is made or not when read is completed. For manual transmission and direct transmission, no sound is made.
<table><tr><td>1: Silent</td><td>0: 1 sec</td></tr></table></td><td>1 sec</td><td>0</td><td></td><td></td></tr>
<tr><td>2</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>3</td><td rowspan="2">Speaker sound volume setup</td><td rowspan="2">Used to set speaker sound volume. The following items of sound volume setup are the same as this setup: Line monitor sound volume, operation panel sound volume, send end sound volume, receive end sound volume, read end sound volume.
<table><tr><td>SW26 Bit No.</td><td>3 4</td><td rowspan="5">(Each sound volume can be turned OFF individually. When this is set to OFF, all the items on the left are turned OFF.)</td></tr><tr><td>Silent (OFF)</td><td>0 0</td></tr><tr><td>Small</td><td>0 1</td></tr><tr><td>Medium</td><td>1 0</td></tr><tr><td>Large</td><td>1 1</td></tr></table></td><td rowspan="2">Small</td><td>0</td><td rowspan="2">104</td><td rowspan="2"></td></tr>
<tr><td>4</td><td>1</td></tr>
<tr><td>5</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>6</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>7</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>8</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td rowspan="8">SW27</td><td>1</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>2</td><td rowspan="4">Recording paper tray select</td><td rowspan="4">Used to select the tray for output of the received documents. Tray 1 – Tray 4 can be set to ON/OFF individually. When set to OFF, the tray does not output received documents.
<table><tr><td>SW27 Bit No. 2</td><td>Tray 1</td><td>1: ON</td><td>0: OFF</td></tr><tr><td>SW27 Bit No. 3</td><td>Tray 2</td><td>1: ON</td><td>0: OFF</td></tr><tr><td>SW27 Bit No. 4</td><td>Tray 3</td><td>1: ON</td><td>0: OFF</td></tr><tr><td>SW27 Bit No. 5</td><td>Tray 4</td><td>1: ON</td><td>0: OFF</td></tr></table></td><td>ON</td><td>1</td><td rowspan="4">134</td><td rowspan="4">When set to “0000”, set to “1111” (All ON).</td></tr>
<tr><td>3</td><td>ON</td><td>1</td></tr>
<tr><td>4</td><td>ON</td><td>1</td></tr>
<tr><td>5</td><td>ON</td><td>1</td></tr>
<tr><td>6</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>7</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>8</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
</table>

SW NO.	Data NO.	Item	Switch selection and contents of functions	Initial value		User program No.	Remark
SW28	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			0		
	8	Standard reading setup	Read mode setup in the standard mode 1: cm50% (Standard mode is read as Standard mode.) / 0: Without cm50% (Standard mode is read as Fine mode.)	Reading Fine mode	0		
SW29	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Number of call rings	Used to set the number of call rings until reception is started in auto reception mode. The set range is 0 – 9 times by binary input. When set to 0, no ring is made. SW29 Bit No. 5 6 7 8 Set range 0 – 9 times (Binary input)	2 times	0	117	When set to 10 or more times, set to 2.
	6				0		
	7				1		
	8				0		
SW30	1	Report output when canceling	Used to set whether the user cancel report is outputted or not when canceling document transmission. 1: Output / 0: Not output	Not output	0		
	2	Reserved			0		
	3	Rotation print	Used to set Enable/Disable of rotation print when the received document can be printed by rotation. 1: Enable / 0: Disable	Enable	1		
	4	Dept. management	Used to set Enable/Disable of FAX using dept. management by the use of the dept. management function. 1: Enable / 0: Disable	Disable	0	101	If the dept. code is not set, Enable cannot be selected.
	5	Default date, transmitter print	Used to set whether the transmitter information registered in the transmitter registration and data and time are printed in the upper fringe of the transmitted documents or not. 1: ON / 0: OFF	ON	1		
	6	Reserved			0		
	7	Date/Transmitter print position setup	Used to set the print position of date and transmitter information on the transmitted documents. If set to “Upper inside of document”, images may be deleted. 1: Upper inside of document / 0: Outside of document	Outside of document	0	140	
	8	Report output (Confidential reception)	Used to set whether the communication report table is outputted or not when a confidential reception is made. 1: Print / 0: Not print	Print	1		

<table>
<tr><th>SW NO.</th><th>Data NO.</th><th>Item</th><th>Switch selection and contents of functions</th><th colspan="2">Initial value</th><th>User program No.</th><th>Remark</th></tr>
<tr><td rowspan="8">SW31</td><td>1</td><td rowspan="2">Report output (Transmission)</td><td rowspan="2">Used to set whether the communication report is outputted or not after completion of transmission (excluding sequential broadcasting, sequential send request, and interface broadcasting).<table><tr><td>SW31 Bit No.</td><td>1 2</td></tr><tr><td>Print inhibited</td><td>0 0</td></tr><tr><td>All print</td><td>0 1</td></tr><tr><td>Only when transmission is cancelled</td><td>1 0</td></tr></table></td><td rowspan="2">Only when transmis-sion is cancelled</td><td>1</td><td rowspan="2">137</td><td rowspan="2">When set to “11”, set to “10” (Only when transmission cannot be made)</td></tr>
<tr><td>2</td><td>0</td></tr>
<tr><td>3</td><td rowspan="2">Report output (Sequential broadcasting, sequential send request, interface broadcasting)</td><td rowspan="2">Used to set whether the communication report table is outputted or not after completion of transmission (sequential broadcasting, sequential send request, and interface broadcasting).<table><tr><td>SW31 Bit No.</td><td>3 4</td></tr><tr><td>Print inhibited</td><td>0 0</td></tr><tr><td>All print</td><td>0 1</td></tr><tr><td>Only the addressee to which a transmission is canceled</td><td>1 0</td></tr></table></td><td rowspan="2">All print</td><td>0</td><td rowspan="2">137</td><td rowspan="2">When set to “11”, set to “01” (All print).</td></tr>
<tr><td>4</td><td>1</td></tr>
<tr><td>5</td><td rowspan="2">Report output (Reception)</td><td rowspan="2">Used to set whether the communication report table is outputted or not when a reception (excluding confidential reception) is made.<table><tr><td>SW31 Bit No.</td><td>5 6</td></tr><tr><td>Print inhibited</td><td>0 0</td></tr><tr><td>All print</td><td>0 1</td></tr><tr><td>Only in case of an error</td><td>1 0</td></tr></table></td><td rowspan="2">Print inhibited</td><td>0</td><td rowspan="2">137</td><td rowspan="2">When set to “11”, set to “00” (Print inhibited).</td></tr>
<tr><td>6</td><td>0</td></tr>
<tr><td>7</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>8</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td rowspan="8">SW32</td><td>1</td><td rowspan="4">Distinctive ring</td><td rowspan="4">Used to set the ring pattern of FAX reception.<table><tr><td>SW32 BitNo.</td><td>1 2 3 4</td></tr><tr><td>OFF</td><td>0 0 0 0</td></tr><tr><td>Standard Ring</td><td>0 0 0 1</td></tr><tr><td>Pattern 1</td><td>1 0 0 0</td></tr><tr><td>Pattern 2</td><td>0 1 0 0</td></tr><tr><td>Pattern 3</td><td>1 1 0 0</td></tr><tr><td>Pattern 4</td><td>0 0 1 0</td></tr><tr><td>Pattern 5</td><td>1 0 1 0</td></tr></table></td><td rowspan="4"></td><td>0</td><td rowspan="4">110</td><td rowspan="4">When a bit other than the specified on the left is set, the initial value “0000(OFF)” is set.</td></tr>
<tr><td>2</td><td>0</td></tr>
<tr><td>3</td><td>0</td></tr>
<tr><td>4</td><td>0</td></tr>
<tr><td>5</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>6</td><td>Index print setup</td><td>Used to set whether the index is printed or not when outputting received documents.<table><tr><td>1: Print</td><td>0: Not print</td></tr></table></td><td>Not print</td><td>0</td><td>142</td><td></td></tr>
<tr><td>7</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>8</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
</table>

SW NO.	Data NO.	Item	Switch selection and contents of functions	Initial value		User program No.	Remark
SW33	1	Page number print setup	Used to set whether the page number is added to the position where date and transmitter information are printed. (In memory transmission, paper number/total number of pages) 1: YES / 0: NO	YES	1	141	
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW34	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW35	1	Cover paper function default setup	Used to set the cover paper setup to the default. When auto clear is made after pressing the C/A key, the machine returns to this mode. 1: YES / 0: NO	NO	0		
	2	Reserved			0		
	3	CI signal extinction max. OFF time	If the next CI signal pulse is not detected within the max. wait time until the next CI signal pulse is detected after detection of a CI signal pulse (number of times), the number of calls up to that time is canceled. SW35 Bit No. 3 4 5 sec 0 0 10 sec 0 1 15 sec 1 0 20 sec 1 1	5 sec	0		
	4				0		
	5	Reserved			1		
	6	Reserved			0		
	7	Reserved			1		
	8	Reserved			0		
SW36	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			1		
	4	Reserved			1		
	5	Reserved			1		
	6	Reserved			1		
	7	Reserved			0		
	8	Reserved			0		

SW NO.	Data NO.	Item	Switch selection and contents of functions	Initial value		User program No.	Remark
SW37	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			1		
	7	Reserved			0		
	8	Reserved			1		
SW38	1	Pause time setup	Used to set the pause time. The set range is 1 sec to 15 sec by binary input. When set to 0, it is the same as 2 sec. SW38 Bit No. 1 2 3 4 Set range: 1 – 15 sec in the increment of 1 sec (Binary input)	2 sec	0	103	When set to "0000", set to "0010".
	2				0		
	3				1		
	4				0		
	5	Reserved			0		
	6	Reserved			0		
	7	Transfer function	Used to set Enable/Disable of transfer of memory reception image to another FAX when print is inhibited. 1: Enable / 0: Disable	Enable	1	109	
	8	Reserved			0		
SW39	1	Auto send call time setup (T0 timer setup)	Used to set the call time when call does not reach the other party in auto send mode. The set range is 30 – 60 sec in the increment of 5 sec by binary input of "(5 sec × N) + 30 sec)". "N" can be set in the range of 0 -7. When set to 7 (65 sec), it is the same as setup of 45 sec. SW39 Bit No. 1 2 3 Set range: 30 sec – 60 sec in the increment of 5 sec (Binary input)	45 sec	0	116	When set to "111", set to "011".
	2				1		
	3				1		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW40	1	Number of recall times in case of an error	Used to set the number of recall times in case of a communication error. SW40 Bit No. 1 2 3 4 5 6 7 8 Set range: 0 – 1 times (Binary input) 0: Recall inhibited	1 times	0	114	When set to 2 or more times, set to 1.
	2				0		
	3				0		
	4				0		
	5				0		
	6				0		
	7				0		
	8				1		

SW NO.	Data NO.	Item	Switch selection and contents of functions	Initial value		User program No.	Remark
SW41	1	Number of recall times in case of busy state	Used to set the number of recall times in case of busy state of the other party or when call does not reach the other party. SW41 Bit No. 1 2 3 4 5 6 7 8 Set range: 0 – 14 times (Binary input) 0: Recall inhibited	2 times	0	112	When it is set to 15 or more times, set to 2.
	2				0		
	3				0		
	4				0		
	5				0		
	6				0		
	7				1		
	8				0		
SW42	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Auto select between Manual/Auto reception	Used to set Enable/Disable of auto select between Manual/Auto reception 1: Enable / 0: Disable	Disable	0		
	5	Call number of auto select between Manual/Auto reception	Used to set the call number of auto select between Manual/Auto reception. SW42 Bit No 5 6 7 8 Set range 1 – 9 times	9 times	1		When “0000” is set, the initial value of “1001” is set. When set to 10 or more times, set to 9.
	6				0		
	7				0		
	8				1		
SW43	1	DTMF signal send time	Used to set the DTMF signal send time when sending it. The set range is 60 – 310 ms by binary input of “10(ms) × N”. “N” can be set in the range of 6 – 31. SW43 Bit No. 1 2 3 4 5 Set range: 60 – 310 ms When set to outside of the range: 110 ms in the increment of 10 ms (Binary input)	110 ms	0		When set to under “00101”, set to “01011”.
	2				1		
	3				0		
	4				1		
	5				1		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW44	1	Tone/Pulse default setup	Used to set the employing line (dial setup). Selection is available in 10PPS and TONE. SW44 Bit No. 1 2 10 PPS 0 0 TONE 1 0	TONE	1	102	When set to “*1”, set to “10”
	2				1		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			1		
	7	Reserved			0		
	8	Reserved			0		

SW NO.	Data NO.	Item	Switch selection and contents of functions	Initial value		User program No.	Remark
SW45	1	F.A.S.T mode	Used to set YES/NO of the conformity for F.A.S.T 1: YES / 0: NO	NO	0		
	2 3	Date format of LCD, report, and transmitter record	Used to set the date format of LCD display, report descriptions, and the transmitter information. SW45 Bit No. 2 3 Year/Month/Day 0 0 Month/Day/Year 0 1 Day/Month/Year 1 0	Month/Day/ Year	0 1		
	4	Time format	Used to set the time format of LCD display, report descriptions, and the transmitter information. 1: AM/PM / 0: 24H	AM/PM	1		
	5	Reserved			0		
	6	Reserved			1		
	7	Reserved			0		
	8	Reserved			0		
SW46	1	Reserved			1		
	2	Reserved			1		
	3	Priority in the day of week	Used to set the recording sequence of the day of month and the day of week if the date is in the sequence of day, month, and year (SW 45 No. 2 – No. 3 : 10). 1: YES / 0: NO	NO	0		
	4	Reserved			0		
	5	Daylight saving time	Used to set Enable/Disable of Daylight saving time. 1: Enable / 0: Disable	Disable	0	144	
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW47	1	Time designation 1 (hour) print on the activity report	Used to set time designation 1 (hour) to be printed on the activity report. SW47 Bit No. 1 2 3 4 5 Set range: 00 – 23 Input of 2 digits (Binary input)	00	0	139	When set to 24 – 31, it is set to “00”.
	2				0		
	3				0		
	4				0		
	5				0		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW48	1	Time designation 1 (min) print on the activity report	Used to set time designation 1 (min) to be printed on the activity report. SW48 Bit No. 1 2 3 4 5 6 Set range: 00 – 59 Input of 2 digits (Binary input)	00	0	139	When set to 59 – 63, it is set to “00”.
	2				0		
	3				0		
	4				0		
	5				0		
	6				0		
	7	Reserved			0		
	8	Reserved			0		

SW NO.	Data NO.	Item	Switch selection and contents of functions	Initial value		User program No.	Remark
SW49	1	Time designation 2 (hour) print on the activity report	Used to set time designation 2 (hour) to be printed on the activity report. SW47 Bit No. 1 2 3 4 5 Set range: 00 – 23, Input of 2 digits (Binary input)	00	0	139	When set to 24 – 31, it is set to “00”.
	2				0		
	3				0		
	4				0		
	5				0		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW50	1	Time designation 2 (min) print on the activity report	Used to set time designation 2 (min) to be printed on the activity report. SW48 Bit No. 1 2 3 4 5 6 Set range: 00 – 59, Input of 2 digits (Binary input)	00	0	139	When set to 59 – 63, it is set to “00”.
	2				0		
	3				0		
	4				0		
	5				0		
	6				0		
	7	Reserved			0		
	8	Reserved			0		
SW51	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	CED detection time	Used to set CED/ANSam signal detection time. When the CED/ANSam signal is detected for duration of the set time, it is recognized. 1: 500 ms / 0: 1000 ms	1000 ms	0		
	7	Reserved			0		
	8	Reserved			0		
SW52	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	RTN reception error process	Used to set whether RTN reception is treated as a communication error or not. 1: Not treated as an error / 0: Treated as an error	Treated as an error	0		
	6	V.34 mode function in manual communication	Used to set ON/OFF of V.34 mode function on the other party side in manual communication. If SW52-7 is set to “0: OFF”, though SW52-6 is set to “1: ON”, V.34 mode is disabled. 1: ON / 0: OFF	ON	1		
	7	V.34 mode function	Used to set ON/OFF of V.34 mode function on the machine. 1: ON / 0: OFF	ON	1		
	8	V.34 control channel communication speed	Used to set V.34 mode communication speed of the control channel. If the other party is not set to 2400 bps Enable, it is set to 1200 bps. 1: 2400 bps / 0: 1200 bps	1200 bps	0		

SW NO.	Data NO.	Item	Switch selection and contents of functions	Initial value		User program No.	Remark
SW53	1	DTMF send level (High group) setup	Used to set the DTMF signal send level (high group). The set range is 0 – 15 with binary input in the increment of 0.5dB. Send level = – (Set value + 16)/2 [dB] SW53 Bit No. 1 2 3 4 Set range: 0 – 15 In the increment of 0.5db (Binary input)	7	0		
	2				1		
	3				1		
	4				1		
	5	DTMF send level (Low group) setup	Used to set the DTMF signal send level (low group). The set range is 0 – 15 with binary input in the increment of 0.5dB. Send level = – (Set value + 20)/2 [dB] SW53 Bit No. 5 6 7 8 Set range: 0 – 15 In the increment of 0.5db (Binary input)	7	0		
	6				1		
	7				1		
	8				1		
SW54	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			1		
	4	Reserved			1		
	5	Reserved			0		
	6	Reserved			1		
	7	Reserved			1		
	8	Reserved			1		
SW55	1	CI signal OFF detection allow time	Used to set the min. OFF time for judgement of CI pulse (16Hz call signal). When OFF time continues for more than the set time, it is judged as 1 pulse of CI. Set value × 10 ms SW55 Bit No. 1 2 3 4 5 6 7 Set range: 0 – 1270 ms In the increment of 10 ms (Binary input)	1200 ms	1		
	2				1		
	3				1		
	4				1		
	5				0		
	6				0		
	7				0		
	8	Reserved			0		
SW56	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW57	1	Reserved			0		
	2	Reserved			1		
	3	EQM dispersion deterrence	Used to set whether EQM dispersion is deterred or not when the other party machine is greatly out of synchronization in reception. 1: Deterred (Timing recovery) / 0: Not deterred	Not deterred	0		
	4	Reserved			0		
	5	Reserved			0		

SW NO.	Data NO.	Item	Switch selection and contents of functions	Initial value		User program No.	Remark
SW57	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW58	1	V.34 3429 (Baud) Rate Mask	Used to set whether 3429 is supported as the symbol rate in V.34 communication or not. 1: Supported / 0: Not supported	Supported	1		
	2	V.34 3200 (Baud) Rate Mask	Used to set whether 3200 is supported as the symbol rate in V.34 communication or not. 1: Supported / 0: Not supported	Supported	1		
	3	V.34 3000(Baud) Rate Mask	Used to set whether 3000 is supported as the symbol rate in V.34 communication or not. 1: Supported / 0: Not supported	Supported	1		
	4	V.34 2800 (Baud) Rate Mask	Used to set whether 2800 is supported as the symbol rate in V.34 communication or not. 1: Supported / 0: Not supported	Supported	1		
	5	Reserved			0		
	6	V.34 2400 (Baud) Rate Mask	Used to set whether 2400 is supported as the symbol rate in V.34 communication or not. 1: Supported / 0: Not supported	Supported	1		
	7	Reserved			1		
	8	Reserved			1		
SW59	1	Reserved			1		
	2	Reserved			1		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW60	1	Reserved			1		
	2	Reserved			1		
	3	Reserved			1		
	4	Reserved			1		
	5	Reserved			1		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW61	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			1		
	4	Reserved			1		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		

SW NO.	Data NO.	Item	Switch selection and contents of functions	Initial value		User program No.	Remark
SW62	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			1		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW63	1	Reserved			1		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			1		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			1		
	8	Reserved			1		
SW64	1	Reserved			0		
	2	Reserved			1		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			1		
	7	Reserved			1		
	8	Reserved			0		
SW65	1	Reserved			0		
	2	Reserved			1		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			1		
	8	Reserved			0		
SW66	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			1		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			1		

SW NO.	Data NO.	Item	Switch selection and contents of functions	Initial value		User program No.	Remark
SW67	1	Make time (10PPS) setup	Used to set the make time when dialing at 10PPS. The set range of N is 0 – 15 in binary input for the make time of (N +26 ms), which ranges from 26 to 41 ms.	40 ms	1		
	2				1		
	3				1		
	4				0		
	5	Reserved			0		
	6	Reserved			1		
	7	Reserved			1		
	8	Reserved			1		
SW68	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	T1 timer setup	Used to set T1 timer.	40 sec	0		
	6				0		
	7				1		
	8				0		
SW69	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW70	1	Reserved			1		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			1		
	7	Reserved			0		
	8	Reserved			0		
SW71	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			1		
	6	Reserved			1		
	7	Reserved			0		
	8	Reserved			0		

SW67 Bit No.	1 2 3 4
Set range	26 – 41 ms In the increment of 1 ms (Binary input)

SW68 Bit No.	5 6 7 8
Set range	30 – 110 sec Increment of 5 sec (Binary input)

<table>
<tr><th>SW NO.</th><th>Data NO.</th><th>Item</th><th>Switch selection and contents of functions</th><th colspan="2">Initial value</th><th>User program No.</th><th>Remark</th></tr>
<tr><td>SW72</td><td>1</td><td>EYE-Q check</td><td>Used to set whether TCF is checked or not in TCF reception.<table><tr><td>1: EYE-Q check only</td><td>0: "0" reception & EYE-Q check</td></tr></table></td><td>“0” reception & EYE-Q check</td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>2</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>3</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>4</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>5</td><td>Reserved</td><td></td><td></td><td>1</td><td></td><td></td></tr>
<tr><td></td><td>6</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>7</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>8</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>SW73</td><td>1</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>2</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>3</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>4</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>5</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>6</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>7</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>8</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td>SW74</td><td>1</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>2</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>3</td><td>Reserved</td><td></td><td></td><td>1</td><td></td><td></td></tr>
<tr><td></td><td>4</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>5</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>6</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>7</td><td>Reserved</td><td></td><td></td><td>1</td><td></td><td></td></tr>
<tr><td></td><td>8</td><td>Reserved</td><td></td><td></td><td>1</td><td></td><td></td></tr>
<tr><td>SW75</td><td>1</td><td rowspan="2">Transmission end sound (Buzzer length) setup</td><td rowspan="2">Used to set the transmission end sound outputted from the speaker when ending a transmission. Though set to “Silent”, in case of a communication error, the buzzer sounds for 3 sec.<table><tr><td>SW75 Bit No.</td><td>1 2</td></tr><tr><td>3 sec</td><td>0 0</td></tr><tr><td>1 sec</td><td>0 1</td></tr><tr><td>Silent</td><td>1 0</td></tr></table></td><td rowspan="2">3 sec</td><td>0</td><td rowspan="2">0</td><td rowspan="2">When set to “11”, it is set to “00”.</td></tr>
<tr><td>2</td><td>0</td></tr>
<tr><td></td><td>3</td><td rowspan="2">Reception end sound (Buzzer length) setup</td><td rowspan="2">Used to set the reception end sound outputted from the speaker when ending a transmission. Though set to “Silent”, in case of a communication error, the buzzer sounds for 3 sec.<table><tr><td>SW75 Bit No.</td><td>3 4</td></tr><tr><td>3 sec</td><td>0 0</td></tr><tr><td>1 sec</td><td>0 1</td></tr><tr><td>Silent</td><td>1 0</td></tr></table></td><td rowspan="2">3 sec</td><td>0</td><td rowspan="2"></td><td rowspan="2">When set to “11”, it is set to “00”.</td></tr>
<tr><td></td><td>4</td><td>0</td></tr>
<tr><td></td><td>5</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>6</td><td>Reserved</td><td></td><td></td><td>0</td><td></td><td></td></tr>
<tr><td></td><td>7</td><td>Reserved</td><td></td><td></td><td>1</td><td></td><td></td></tr>
<tr><td></td><td>8</td><td>Reserved</td><td></td><td></td><td>1</td><td></td><td></td></tr>
</table>

SW NO.	Data NO.	Item	Switch selection and contents of functions	Initial value		User program No.	Remark
SW76	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW77	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW78	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		
SW79	1	Reserved			0		
	2	Reserved			0		
	3	Reserved			0		
	4	Reserved			0		
	5	Reserved			0		
	6	Reserved			0		
	7	Reserved			0		
	8	Reserved			0		

[7] USER PROGRAMS

1. List

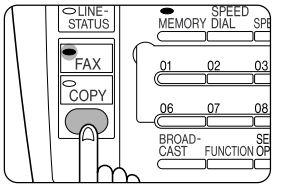
Number	Program Name	Soft SW setup	Function	Note
101	DEPARTMENT CODE SETTING	SW30-4	Set to restrict the use of the fax function to certain departments.	
102	DIAL MODE SETTING	SW44-1 ~ 2	Set to select the type of phone line used for connection.	
103	PAUSE TIME SETTING	SW38-1 ~ 4	Use to change the duration of pauses inserted in a recipient's fax number.	
104	SPEAKER VOLUME SETTING	SW13-3 ~ 4, SW26-3 ~ 4	Set to increase or decrease the speaker volume.	
106	EXTENSION TEL. SETTING	SW16-2	Set to connect an extension telephone.	
108	REMOTE RECEPTION # SETTING	SW2-1 ~ 8	Set to enter a 2-digit number for the remote reception of faxes on an extension telephone.	
109	FW. RX DATA SETTING FOR FAX DATA TRANSFER	SW38-7	Set to enter a phone number for the transferring of faxes that the fax machine cannot output.	
110	DISTINCTIVE RINGING PATTERN	SW32-1 ~ 4	Set the distinctive ringing pattern for your fax machine.	
111	RECALL INTERVAL (BUSY) SETING	SW4-5 ~ 8	Set to change the time interval for dial retries when the recipient's line is busy.	
112	RECALL TIMES (BUSY) SETTING	SW41-1 ~ 8	Set to change the number of retries when the recipient's line is busy.	
113	RECALL INTERVAL (LINE ERROR) SETTING	SW4-1 ~ 4	Set to change the time interval for dial retries when there is a transmission error.	
114	RECALL TIMES (LINE ERROR) SETTING	SW40-1 ~ 8	Set to change the number of retries when there is a transmission error.	
115	INTERRUPT TX AT RECALL MODE SETTING	SW19-2	Set to control whether faxes waiting in memory will be sent when the current job cannot be sent (for example, because of a busy signal).	
116	# OF RINGS AUTO TX SETTING	SW39-1 ~ 3	Set to change the time that elapses before an automatic transmission stops when there is no answer from the recipient's fax.	
117	# OF RINGS AUTO RX SETTING	SW29-5 ~ 8	Set to change the number of rings for automatic reception.	
118	POLLING SECURITY SETTING	SW1-5	Sets polling security so that only designated people can poll your fax machine.	
119	PASSCODE # SETTING	No soft SW	Use to create passcodes that contain the numbers of the fax machines you want to allow to poll your fax machine.	
120	ID # SETTING	No soft SW	Use to enter the ID number of fax machines you want to allow to poll your fax machine.	
121	SYSTEM NO. SETTING	No soft SW	Use to enter the system number of your fax machine.	
122	CONF. BOX # SETTING	No soft SW	Use to enter the mailbox number and passcode for confidential fax reception.	
123	RELAY PASSCODE SETTING	No soft SW	Use to create a relay passcode list of fax machines that you want to allow to make relay requests to your fax machine.	
124	AUTO REDUCE TX SETTING	SW1-4	Set to control the automatic reduction of faxes before transmission.	
125	ROTATE TX SETTING	SW16-6 ~ 8	Set to control whether the image of the original is rotated before transmission.	
126	A3 RX REDUCE SETTING		Set to control whether A3 size originals that are received are reduced.	
131	OWN PASSCODE SET	No soft SW	Use to enter your own name and telephone number.	
132	RX REDUCE SET	SW24-8	Set to automatically reduce the size of received faxes to fit the available paper size.	
133	PRINT COND. SETTING	SW17-2 ~ 3	Set to control whether a received fax that is bigger than the available paper is printed on several pages or automatically reduced.	
134	TRAY SELECT IN RCV. PRINT SETTING	SW27-2 ~ 5	Set to specify automatic paper selection or a specific tray that holds the paper for printing received faxes.	
137	TRANSACTION REPORT PRINT SELECT SETTING	SW31-1 ~ 6	Set to control when to print a transaction report.	

Number	Program Name	Soft SW setup	Function	Note
138	IMAGE MEM. PRINT (LINE ERROR) SETTING	SW1-7	Set to control whether to print the first part of the original on the transaction report when there is an error.	
139	AUTO LISTING SETTING	SW19-7 ~ 8, SW47-1 ~ 5, SW48-1 ~ 6, SW49-1 ~ 5, SW50-1 ~ 6	Set to have a listing of fax activity automatically printed at a certain time.	
140	PRINT STATION # IN RCVD DATA SETTING	SW30-7	Set to choose where to print the date, your name, and your fax number on faxes you send.	
141	PAGE COUNTER PRINT SETTING	SW33-1	Set to print page numbers on faxes you send.	
142	INDEX PRINT	SW32-6	Set to print an index mark on the top of received faxes.	
143	DATE AND TIME SETTING	No soft SW	Use to set the date and time of the internal clock.	
144	DAYLIGHT SAVING TIME SETTING	SW46-5	Set the fax machine to automatically make time changes during the year.	
151	RES. PRIORITY SETTING	SW1-1 ~ 2	Set to select the resolution of transmitted faxes (for example, STANDARD, FINE, SUPER FINE, ULTRA FINE).	
152	SEND MODE	SW8-1	Set to choose whether direct mode or memory sending mode is the default in the initial state.	
153	EXPOSURE SETTING	SW3-1 ~ 5	Set to select the exposure of transmitted faxes (for example, LIGHT, MEDIUM, DARK).	
161	OPTIONAL SETTING LIST PRINT	No soft SW	Set to choose whether to print a list of settings made in user programs.	

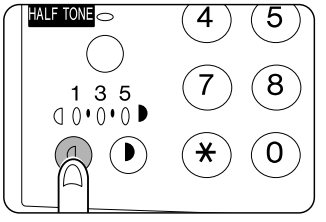
2. How to use user programs

You cannot change user programs during a fax transmission or reception.

1) Select fax mode.
   If the copier mode indicator is lit, press the COPY/FAX key.



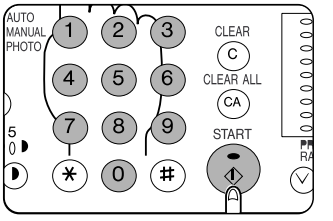
2) Press and hold the light (◑) key for more than 5 seconds.



The following message is displayed.

```
USER PROGRAM
ENTER PRG.   #=  ___
```

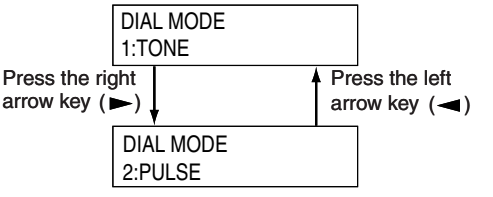
3) Enter the desired user program number (3-digit) using the numeric keys, then press the START key.
   The user program number and name are displayed.
   Instead of entering the user program number, you can also press the left arrow key (◄) or right arrow key (►) to select the user program.



   Canceling: If you make a mistake entering the user program number, press the CLEAR key and enter the number again.

4) Follow the instructions that start on the next page for specific information about setting user programs.
   Canceling: When setting using programs, if you make a mistake entering a number or time using the numeric keys, open the rapid key overlay, press the CLEAR key, and enter the numbers again.
   When setting user programs, the current settings and options are shown on the display panel.
   When you want to exit from the middle of a user program, press the light (◑) key.
   When changing between screens, use the arrow keys as follows.

Example: P102 DIAL MODE SETTING



5) When you are finished setting user programs, press the light (◑) key.

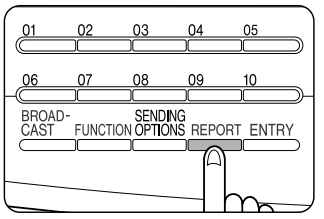
[8] PRINTING

1. How to Print

From the message display, select the type of list or report that you want to print.

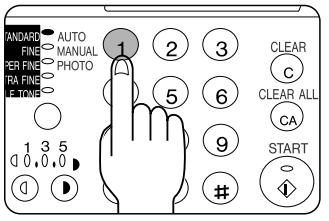
- The activity report can be automatically printed by setting a user program.

1) In fax mode, press the REPORT key.




```
PRINT SELECTION
1=LIST, 2=CONF. DATA
```

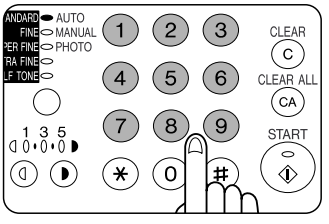
2) Press the "1" key.



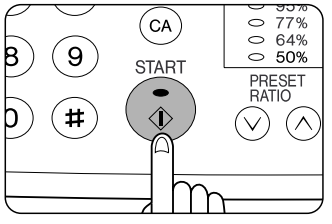

```
LISTING MODE
PRESS (1-9)
```

Note: On the display, "1 – 9" is displayed if auditing is set.
If auditing is not set, "1 – 8" is displayed.

3) Press a key (1 to 9) using the numeric keys to select the type of list or report you want to print.
Choose from the list the type of list or report you want to print. Instead of pressing a key from 1 to 9, press the left arrow key (◄) or right arrow key (►) and press the ENTER key to choose the list type.



4) Press the START key.



Example

```
1=TIMER LIST
PRESS START KEY
```

The lower line of the display shows the type of list or report you are printing.
The fax machine compiles the list you requested and automatically prints it.

Printing Options

1: Timer List	6: Passcode List
2: Activity List	7: Relay Group List
3: Telephone Number List	8: Confidential Reception List
4: Group List	9: Department Usage List
5: Program List	(Only when auditing is set)

Canceling: When you make a mistake entering...
you cannot cancel after pressing the START key.

Note:

- When you are printing a list or report, you can prepare an original for sending. You can also prepare to print the next list or report.
- You can automatically print the activity list at a certain time. With a user program you can print the activity list up to twice daily.

2. About Reports you can Print

(Activity Report List)

You can print out a list of faxes sent and received as well as the sender or recipient and the time of the operation, etc.
With a user program you can print out the activity list at a certain time (2 times, maximum).
(Example)

P.01

ACTIVITY REPORT (SEND)

SEP-10-1999 FRI 06:30 PM

#	DATE	START TIME	RECEIVER'S NAME	COM.TIME	PAGES	TYPE/NOTE	DEPT	FILE
XX	SEP/10	XX:XX	XX	XX	XX	XXXXXXX		
		TOTAL		XX	XX			
		GRAND TTL		XX	XX			

P.02

ACTIVITY REPORT (RECEIVE)

SEP-10-1999 FRI 06:30 PM

#	DATE	START TIME	RECEIVER'S NAME	COM.TIME	PAGES	TYPE/NOTE	DEPT
XX	SEP/10	XX:XX	XX	XX	XX	XXXXXXX	
		TOTAL		XX	XX		
		GRAND TTL		XX	XX		

Note:

- Up to 50 sending and receiving operations can be stored in the activity report list. When more than 50 operations are performed, the excess ones are deleted, starting with the oldest.
- You can print out the same activity report list data more than once.

The following explains activity list results.

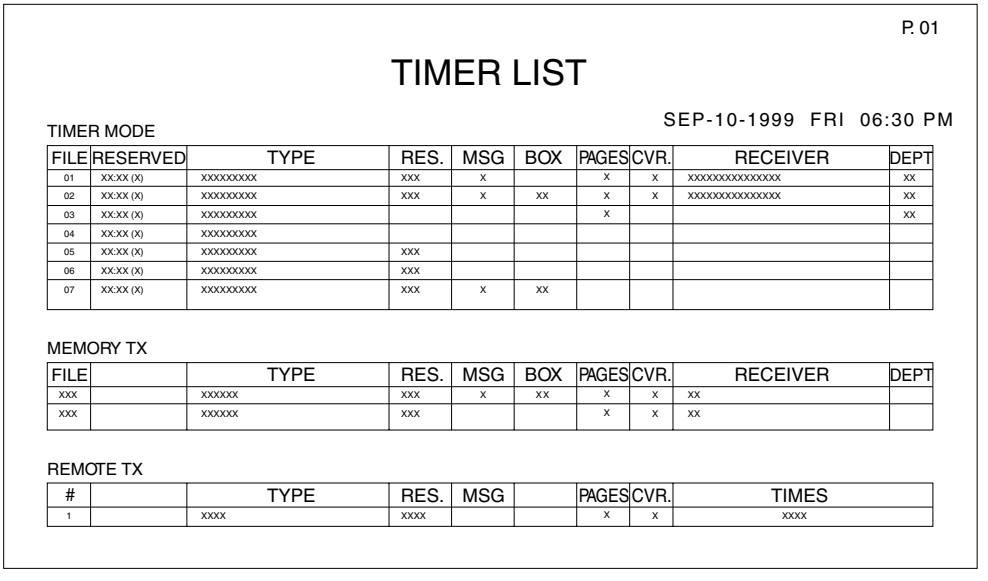
Sending Result	Explanation
OK	The transmission completed successfully.
BUSY	Not transmitted because the line was busy.
CANCEL	Canceled during transmission or memory sending operation was canceled.
P. FAIL	There was a power failure during transmssion.
NO RESPONSE	The phone was not answered.
NO RX POLL	When being polled 1) The other fax machine number has not been entered. 2) The fax number of the other fax machine has not been entered in your passcode list.
PASSCODE # E	When being polled 1) The other fax machine's system number has not been entered in your passcode list. 2) The system number of the other fax machine and your fax machine do not match.
RX TERM FALL	When sending a confidential fax 1) The other fax machine does not have the confidential fax receiving function or is not a SHARP product. 2) The other fax machine has only one confidential box and the passcode has not been entered in it.
NO REL FUNC	When making a relay request 1) The other fax machine does not have the relay fax function. 2) The other fax is not a SHARP product.
CONF. TX CNCL	1) You made a mistake entering the confidential box number for the fax machine with confidential confidential boxes. 2) Your fax machine number has not been entered.
REL REQ FAIL	When making a relay request 1) The automatic dialing number was not entered in the other fax machine. 2) Your fax machine number has not been entered into the other fax machine's Relay Passcode List.
ORIG ERROR	When using direct sending with the SPF, there is an original misfeed.
ERRORxx xxxx	Because of poor line conditions, a telephone line error prevented the transmission. COM. ERROR number (first 2 digits): The displayed error code is from 00 to 31 COM. ERROR number (last 4 digits): Used by service personnel

Reception Result	Explanation
OK	The reception completed successfully.
P. FAIL	There was a power failure during transmssion.
MEM. FULL	When using substitute reception, memory has become full.
LENGTHOVER	The received original was extra long.
CONF. ERROR	When receiving a confidential fax, the other fax machine entered a confidential box number that does not exist on your fax machine.
RX NO POLL	When polling 1) Your fax number has not been entered. 2) Your fax number has not been entered in the passcode list of the other fax machine. 3) Your system number is not entered in the passcode list of the other fax machine. 4) The system number of the other fax machine and your fax machine do not match.
CONF. TX CNCL	The other fax machine number was not entered.
RECEIVER DOES NOT HAVE POLLING	When polling 1) The other fax machine does not have the polling function. 2) The original is not set in the other fax machine or has not been read into memory.
REL REQ FAIL	When receiving a relay request the fax number of the requesting fax machine has not been entered into your Relay Passcode List.
A REL REQUEST WAS NOT SUCCESSFUL	When requesting fax machine created a relay group with an automatic dialing number that does not exist on the relay station fax machine.
ERRORxx xxxx	Because of poor line conditions, a telephone line error prevented the reception. COM. ERROR number (first 2 digits): The displayed error code is from 00 to 31 COM. ERROR number (last 4 digits): Used by service personnel

(Timer List)

You can print a list of timer or dual access operations that are currently set.

(Example)



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TIMER LIST

SEP-10-1999 FRI 06:30 PM

TIMER MODE

FILE	RESERVED	TYPE	RES.	MSG	BOX	PAGES	CVR.	RECEIVER	DEPT
01	XX:XX (X)	XXXXXXXXX	XXX	X		X	X	XXXXXXXXXXXXXX	XX
02	XX:XX (X)	XXXXXXXXX	XXX	X	XX	X	X	XXXXXXXXXXXXXX	XX
03	XX:XX (X)	XXXXXXXXX				X			XX
04	XX:XX (X)	XXXXXXXXX							
05	XX:XX (X)	XXXXXXXXX	XXX						
06	XX:XX (X)	XXXXXXXXX	XXX						
07	XX:XX (X)	XXXXXXXXX	XXX	X	XX				

MEMORY TX

FILE		TYPE	RES.	MSG	BOX	PAGES	CVR.	RECEIVER	DEPT
XXX		XXXXXX	XXX	X	XX	X	X	XX	
XXX		XXXXXX	XXX			X	X	XX	

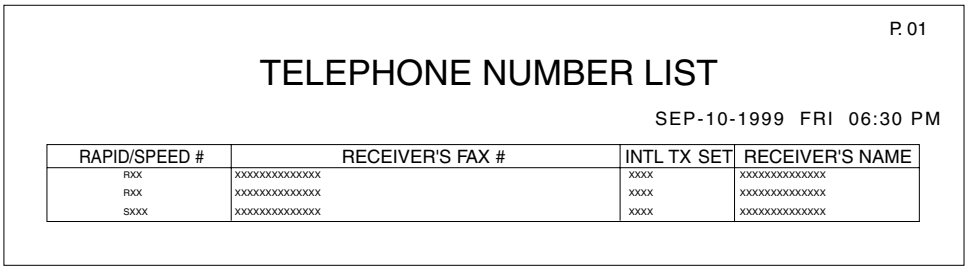
REMOTE TX

#		TYPE	RES.	MSG		PAGES	CVR.	TIMES
1		XXXX	XXXX			X	X	XXXX

(Telephone Number List)

You can print out a list of number stored in rapid dialing and speed dialing.

(Example)



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TELEPHONE NUMBER LIST

SEP-10-1999 FRI 06:30 PM

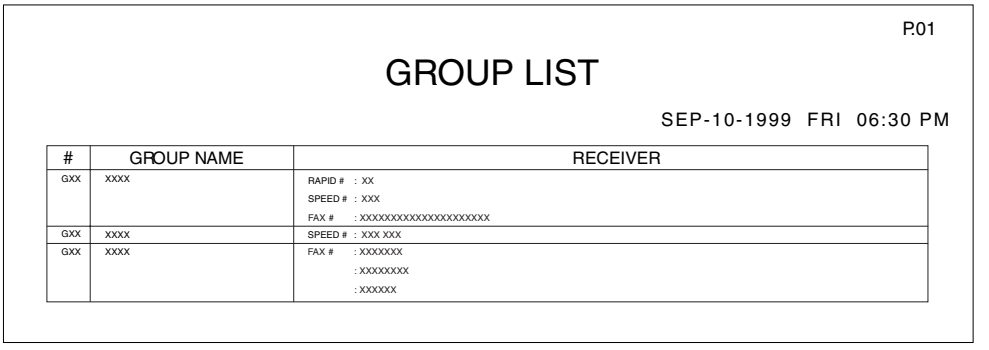
RAPID/SPEED #	RECEIVER'S FAX #	INTL TX SET	RECEIVER'S NAME
RXX	XXXXXXXXXXXXX	XXXX	XXXXXXXXXXXXX
RXX	XXXXXXXXXXXXX	XXXX	XXXXXXXXXXXXX
SXXX	XXXXXXXXXXXXX	XXXX	XXXXXXXXXXXXX

- The automatic dialing numbers are printed out in the following way.
  - * Rapid dial: R01, R02...
  - * Speed dial: S001, S002..

(Group List)

You can print out a list of group dialing numbers.

(Example)



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GROUP LIST

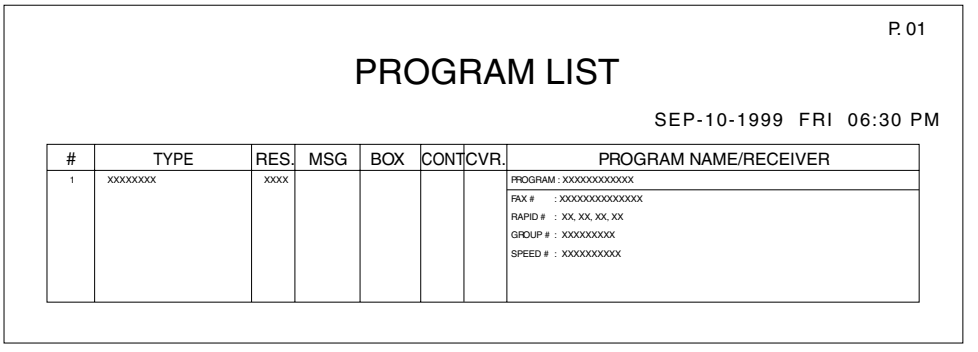
SEP-10-1999 FRI 06:30 PM

#	GROUP NAME	RECEIVER
GXX	XXXX	RAPID # : XX SPEED # : XXX FAX # : XXXXXXXXXXXXXXXXXXXX
GXX	XXXX	SPEED # : XXX XXX
GXX	XXXX	FAX # : XXXXXXX : XXXXXXXX : XXXXXX

(Program List)

You can print a list of entered programs.

(Example)



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PROGRAM LIST

SEP-10-1999 FRI 06:30 PM

#	TYPE	RES.	MSG	BOX	CONT	CVR.	PROGRAM NAME/RECEIVER
1	XXXXXXXX	XXXX					PROGRAM : XXXXXXXXXXX
							FAX # : XXXXXXXXXXXX RAPID # : XX, XX, XX, XX GROUP # : XXXXXXXX SPEED # : XXXXXXXXX

(Passcode List)

You can print a list of your fax information and polling security information.

(Example)

PASSCODE LIST

SEP-10-1999 FRI 06:30 PM

POLL SECURITY	XXXX	
SYSTEM#	XXXX	
ID#	01	XXXX
	02	XXXX
	03	
	04	
	05	
	06	
	07	
	08	
	09	
	10	
PASSCODE#	01	XXXXXXXXXX
	02	XXXXXXXXXX
	03	
	04	
	05	
	06	
	07	
	08	
	09	
	10	
RELAY ID#	01	XXXXXXXXXXXX
	02	
	03	
	04	
	05	
	06	
	07	
	08	
	09	
	10	

SENDER'S NAME	XXXXXXXXXXXXXXXXX
SENDER'S #	XXXXXXXXXXXXXXX
FW. STA. NAME	XXXXXXXXXXXXXXXXXXX
FW RECIEVER #	XXXXXXXXXXXXXXX

(Relay Group List)

You can print a list of the entered relay groups.

(Example)

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RELAY GROUP LIST

SEP-10-1999 FRI 06:30 PM

#	RECEIVER'S #	
XX	REL #	FAX # : XXXXXXX
	STA #	RAPID # : XX XX XX XX XX
		SPEED # : XX XX XX XX XX
		GROUP # : XX XX XX XX XX
		FAX # : XXXXXXXXXXXX

(Confidential Reception List)

You can print a list of confidential box numbers and the total number of confidential fax pages received for each confidential box.

(Example)

CONFIDENTIAL RECEPTION LIST

SEP-10-1999 FRI 06:30 PM

BOX#	NAME	TOTAL PAGE
XX	XXXX	XXX
XX	XXXX	XXX
XX	XXXX	XXX

(Department Usage List)

You can only print out this list if auditing is turned on with a user program. Each time you print out the list, the data is erased.

(Example)

DEPARTMENT USAGE LIST

SEP-10-1999 FRI 06:30 PM

DEPT #	DEPARTMENT NAME	COM. TIME	TOTAL PAGE
01	XXXX	XX:XX:XX	XXXX
02	XXXX	XX:XX:XX	XXXX
03	XXXX	XX:XX:XX	XXXX
04			
05			
06			
07			
08			
09			
TOTAL		XX:XX:XX	XXXX

(Transaction Report)

You can print a transaction report to after an operation to check the result. You can print out a transaction report automatically with a user program. You can choose the following ways of printing transaction reports.

1) When Printing Reports for Transmissions
- Print a transaction report after every transmission operation.
- Print a transaction report only after errors.
- Do not print a transaction report.

Note: A transaction report of a canceled transmission is printed for broadcasting and confidential fax operations only.

2) When Printing Reports for Broadcasting
- Print a transaction report after every broadcast operation.
- Print a transaction report only after failed broadcast operations.
- Do not print a transaction report.

3) When Printing Reports for Receptions
- Print a transaction report after every reception operation.
- Print a transaction report only after errors.
- Do not print a transaction report.

4) When Printing Reports for Confidential Receptions
- Print a transaction report after every confidential reception operation.
- Do not print a transaction report.

5) Cautions When Printing Reports for Transmissions

You cannot print a transaction report in the following situations.
- When these messages are displayed on the display.
  - * FAX RCVED IN MEMORY
  - * PAPER OUT (XXX)
  - * EXIT TRAY FULL
  - * CAN'T PRINT
- When the , , or alarm indicators on the operation panel are lit or blinking.

6) About Printing a Report About a Memory Sending Error

When printing a transaction report about a memory sending error, a portion of the original is printed on the report. However, in the case of a confidential memory sending error, none of the original is printed on the report.

(Example)

TRANSACTION REPORT

SEP-10-1999 FRI 06:30 PM

TX (MEMORY)

#	DATE	START TIME	RECEIVER'S NAME	COM. TIME	PAGES	TYPE/NOTE	DEPT	FILE
XX	SEP/10	XX:XX	XXXXXXXXXX	XX	X	XXXXXXXX	XX	XXX

FOLLOWING DATA CANNNOT BE SENT
PLEASE HANDTHIS ACTIVITY REPORT TO XXXX

[9] FIRMWARE VERSION UP PROCEDURE

1. Cases where firmware version up is required

The firmware of the flash memory on the FAX control PWB must be revised in the following cases:

1) When a bug or an error is found.
2) When data in the flash memory is destroyed or deleted.

2. Maintenance Fax Program

The maintenance FAX Program is a utility software which is used to write into the download card used in version up of the AR-160/200series FAX program. The operating procedure is as follows:

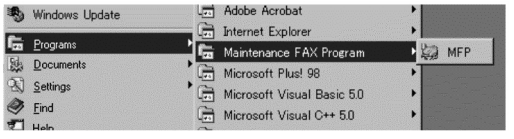
A. Use environment

Personal computer: Windows95 (Japanese or English) machine with PCMCIA card slot
Download software: Maintenance Fax Program
Download card: UKOG-0008QSZZ (BN-S04MF4C)
Card adapter: UKOG-0009QSZZ (BN-SPCADP)
Necessary file: CardAPI (Made by Adtek System Science) must be installed. Program data

B. Installation of the program

(1) CardAPI installing procedure
   1) Select “Setup.inf” in the CardAPI disk and right-click the mouse to open the menu.
   2) Select “Install” in the menu. The file is automatically copied.
   3) Resume the system.

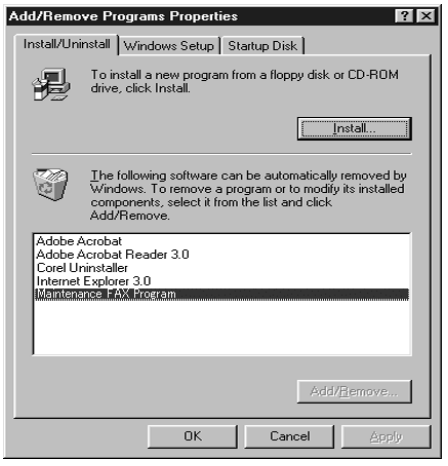
(2) Maintenance FAX Program installing procedure
   1) Double-click “Setup.exe” in the setup disk 1 to start setup.
   2) When setup is executed according to the setup withered directions, the icon is made in the start menu.
   3) Double-click the icon to start the program.



C. Uninstallation of the program

(1) CardAPI uninstalling procedure
   Uninstall is executed in “Add/Remove Programs” in the control panel.
   Follow the instructions of the uninstall withered to execute uninstall.

(2) Maintenance FAX Program uninstalling procedure
   Uninstall is executed in “Add/Remove Programs” in the control panel.
   Follow the instructions of the uninstall withered to execute uninstall.

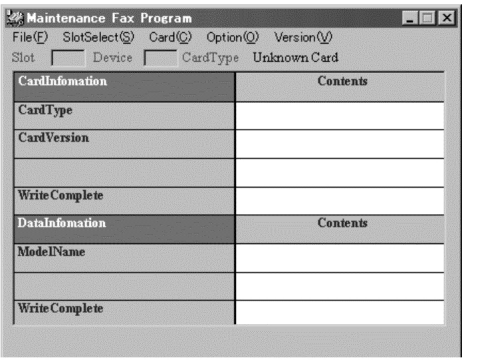

Add/Remove Programs Properties
Install/Uninstall
Windows Setup
Startup Disk
To install a new program from a floppy disk or CD-ROM drive, click Install.
Install...
The following software can be automatically removed by Windows. To remove a program or to modify its installed components, select it from the list and click Add/Remove.
Adobe Acrobat
Adobe Acrobat Reader 3.0
Corel Uninstaller
Internet Explorer 3.0
Maintenance FAX Program
Add/Remove...
OK
Cancel
Apply

∗ Adlmf32.dll is a shared file. When CardUT97 is installed, do not delete this file.

D. Program operation

(1) Starting the program
   Double-click MFP.exe in the installed folder, or execute the program from the start menu.
   ∗ This program cannot be multi-started. When it is tried to be multi-started, an error message will be shown.

(2) Descriptions of the main menu
   When MFP.exe is executed, the following main menu is displayed.



The main menu shows the following information.

<Slot status>
Slot ··· The selected card slot number is displayed. The card status is also displayed with colors.

Green	The card is inserted into the slot and is available for use.
Yellow	The card is in standby or the battery is exhausted.
System color (or gray)	The card is not inserted into the slot or the slot cannot be used.

<Card device status>
Device ··· Availability of the card device type is displayed with colors.

Green	The card device type is recognized as Intel28F008_5V.	Access to the card is allowed.
Yellow	The card device type cannot be recognized. When the card size is not 4Mbyte and Card(C)_SetDevice(V)_Intel28F008_5V is checked.	Access to the card is allowed, but if the actual card device differs, an unexpected error may occur.
System color (or gray)	The card device type is not set.	Access to the card is inhibited.

∗ The slot status is green and the card device status if green or yellow, access to the card is allowed.
   If access to the card is inhibited, the functions cannot be used except for selection of the slot and ending the application.

<Card format type>
The operation type of the application is displayed.
If the inserted card has information on the card type, setup is automatically made.
If the inserted card has no information on the card type, specify the card type by checking either item of Card(C) _ SetCardType(T) on the menu.

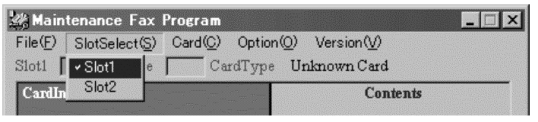
DownLoad Card	The operation type of the application is set up in the DownLoad card.
Registration Card	The operation type of the application is set up in the Registration card.
Unknown Card	The operation type is not specified.

<Card information>
The following information of the inserted card is displayed.

- Card information
  a. Kind of the card
  b. Version of the card
  c. DownLoad Program Version No. or registered data Program Version No.
  d. Write end
- Data information
  a. Model name
  b. Main Program Version No. or registered data ID No.
  c. Write end

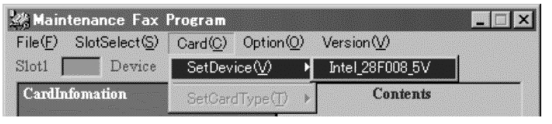
* As the card kind, either of DownLoad, Registration, and Unknown is displayed.
* As write end, Erased or Written is displayed.

(3) Slot selection
If there are two slots available, no slot is selected immediately after starting this application program.
Select the slot to be used. Click SlotSelect(S) in the menu and specify either Slot1 or Slot2. If the card is inserted into the specified slot, the card kind is displayed in the main menu.



* If only one slot is available in the use environment, the slot is automatically selected and there is no need to select the slot. (SlotSelect(S) is not displayed in the menu.)

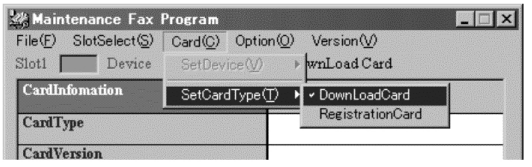
(4) Device Selection
If a slot is selected and the Slot section in the main menu is turned to green, the card is recognized by the application program. (If the Slot section keeps yellow or gray (system color), there are some troubles in the card and it cannot be used.)
If, however, the Device section is gray (system color), the inserted card is not recognized as a specified one (Intel_28F008_5V) or the device information of the card is destroyed by some reason.
To use such a card, the card device must be manually specified. Specify Card(C)_SetDevice(V)_Intel_28F008_5V in the menu.



When the device is specified, the Device section turns yellow to allow access to the card.

* Though access to the cars is allowed by specifying the device, if the specified device differs from the actual device, an unexpected error may occur.

(5) Selection of card type
When access to the cars is allowed and the card's format type information is recorded in the specified address of the inserted card, the operation mode of the application is automatically specified.
If, however, there is no format type information in the card, data must be written into ProgramArea (0 ~ 1fffffH) or the format type must be specified manually.
For writing data, refer to the descriptions below.
To specify the format type manually, specify the items following Card(C)_SetCardType(T) in the menu.

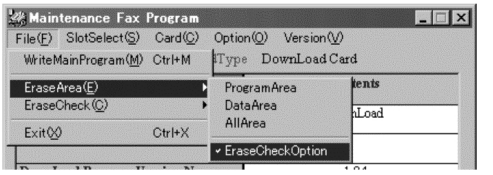


The current operation mode of the application is displayed in the CardType section.
The File(F) menu which can be operated differs depending on the operaton mode of the application.
The CardType is changed when the ProgramArea is erased or data are written into it.

(6) Erase, erase check
If access to the card is allowed (Slot, green; Device, green or yellow), EraseArea(E) and EraseCheck(C) in File(F) menu can be used.
EraseArea erases all data in the specified are of the card. (They are filled with FFH actually.)
EraseCheck checks that erase operation is executed normally or not.
There are three modes for area specification respectively.

ProgramArea	Address 0 ~ 1fffffH of the card
DataArea	Address 200000 ~ 3fffffH of the card.
AllArea	All area of the card

EraseArea has an option of EraseCheckOption.
If this option is checked, erase check is automatically performed after erasing.



(7) Write data into ProgramArea from the file.
Motoroller S37 file data are written into ProgramArea of the card.
Click Option(O)_WriteProgramArea(P) in the menu.

After the confirmation message, the common dialog box is displayed. Specify S37 file to be written.

1) When writing a download program (This procedure must be performed when a program is newly downloaded.)
<a> Click [Option] – [Write Program Area].
<b> Select the version-up file [DwldXXX.s37].
<c> Writing is ended.
2) When writing the main program
<a> Click [FILE] – [Write Main Program].
<b> Select the version-up file [CromXXX.s37].
<c> Writing is ended.

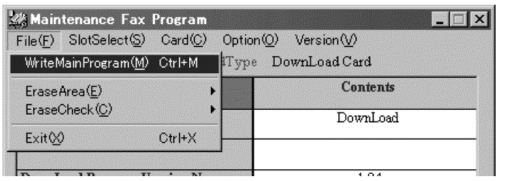
When the file is specified, the progress bar is displayed to indicate the progress level and writing is processed.
The flow of processes is as follows.
ProgramArea erase → Erase check → Data read and write → verify check of written data

* To interrupt the process, press the ESC key.

After completion of data write, initialize the main menu again. (The data are read from the card.)

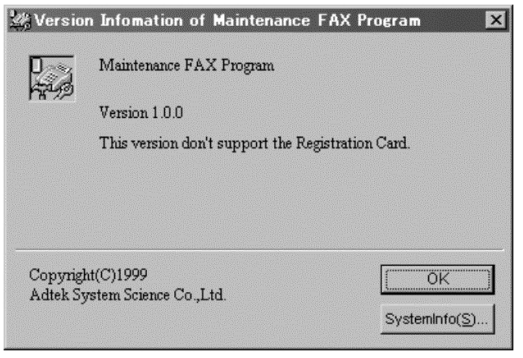
(8) Process menu for each card type
The process menu differs depending on the card format type as follows:

<DownLoadCard>
In the case of DownLoadCard, WirteMainProgram(M) in the File(F) menu can be used. This menu is used to write MainProgram into DataArea of DownLoadCard. The writing procedures are the same as those of WriteProgramArea in the Option menu previously stated.



<RegistrationCard>
This is not supported in Version 1.00.

(9) Version information
The version information of this application program is displayed.



When SystemInfo(S) is clicked, the PC information is displayed.

(10) End the program
Click File(F)_Exit(X) to end the program.
Another way to end the program is to close the window of the main menu.

3. Writing from download card (BN-S04MF4C) to PC

1) Turn off the power of the notebook PC.
2) Insert the download card into the card adapter, and insert the card adapter into the PCMCIA slot of the notebook PC. (Set the write protect switch to OFF.)
3) Turn on the power of the notebook PC.
4) The card is recognized. But click the cancel icon to ignore it.
5) Start the Panther FAX download application (Maintenance Fax Program)
6) Write data into ProgramArea from the file.
Motoroller S37 file data are written into ProgramArea of the card.
Click Option(O)_WriteProgramArea(P) in the menu.

After the confirmation message, the common dialog box is displayed. Specify S37 file to be written.

1) When writing a download program (This procedure must be performed when a program is newly downloaded.)
<a> Click [Option] – [Write Program Area].
<b> Select the version-up file [DwldXXX.s37].
<c> Writing is ended.
2) When writing the main program
<a> Click [FILE] – [Write Main Program].
<b> Select the version-up file [CromXXX.s37].
<c> Writing is ended.

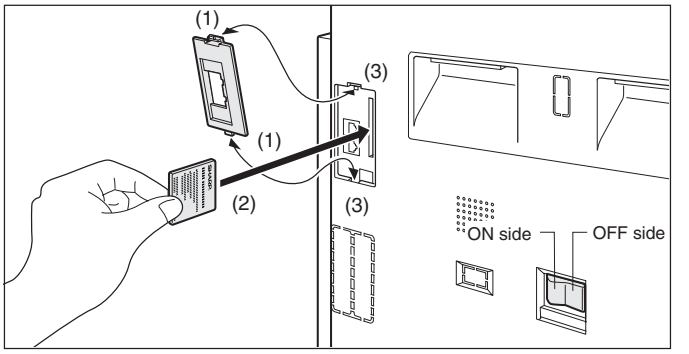
When the file is specified, the progress bar is displayed to indicate the progress level and writing is processed.
The flow of processes is as follows.
ProgramArea erase → Erase check → Data read and write → verify check of written data
∗ To interrupt the process, press the ESC key.

After completion of data write, initialize the main menu again. (The data are read from the card.)

7) After completion of writing, turn off the power of the notebook PC, and remove the card adapter.
8) Set the write protect switch to ON.

4. Writing to main PWB flash ROM

1) Necessary tools
Small flash card (4MB) Panasonic BN-S04MF4C (UKOG-0008QSZZ)
2) Select the FAX mode, then turn off the power.
(Since LCD display is made in the FAX mode, be sure to select the FAX mode before turning off the power.)
3) Insert the download card into the expansion memory slot.



4) Turn on the power.
5) The buzzer sounds twice (long buzzer), and downloading is started.
6) During downloading:
FAX mode: The version name is displayed on the LCD and the buzzer does not sound.
Copy mode: The buzzer keeps sounding. (Not abnormal)
7) The buzzer sounds three times (Long buzzer), and download is completed.
"DOWNLOAD OK POWER OFF" is displayed.
8) Turn off the power and remove the card.

The errors in downloading are as follows:

	Long buzzer	Short buzzer	Countermeasure
Card writing not completed	2 times	2 times	Rewrite the download card.
Download card abnormality	2 times	3 times	Rewrite the download card.
Download card sum check	2 times	4 times	Rewrite the download card.
Flash erase abnormality	2 times	5 times	Main PWB abnormality
Flash write abnormality	2 times	6 times	Main PWB abnormality
Flash sum abnormality	2 times	7 times	Main PWB abnormality

Note:
- Do not turn off the power during downloading.
- Do not switch the mode during downloading.
- Disconnect the telephone line and the interface cable of PC.

[10] TROUBLE CODE LIST

1. Machine trouble codes

Main code	Sub code		Details of trouble
F6	00	Content	F6** MCU-FAX communication trouble (MCU detection)
		Detail	Communication establishment error, framing, parity, protocol error
		Cause	Bad connection of FAX control PWB connector Harness trouble between Fax control PWB and MCU PWB Motherboard connector pin breakage FAX control PWB ROM trouble, data error
		Check and remedy	Check connection and harness between the FAX control PWB and the MCU PWB. Check grounding of the machine. Check the FAX control PWB ROM.
	10	Content	FAX control PWB trouble
		Detail	MCU-FAX control PWB communication trouble
		Cause	Bad connection of FAX control PWB connector Harness trouble between Fax control PWB and MCU PWB Motherboard connector pin breakage FAX control PWB ROM trouble, data error
		Check and remedy	Check connection and harness between the FAX control PWB and the MCU PWB. Check grounding of the machine. Check the FAX control PWB ROM.
	80	Content	FAX control PWB trouble (Protocol)
		Detail	MCU-FAX control PWB communication trouble (Protocol error)
		Cause	Bad connection of FAX control PWB connector Harness trouble between Fax control PWB and MCU PWB Motherboard connector pin breakage FAX control PWB ROM trouble, data error
		Check and remedy	Check connection and harness between the FAX control PWB and the MCU PWB. Check grounding of the machine. Check the FAX control PWB ROM.
	81	Content	FAX control PWB trouble (Parity)
		Detail	MCU-FAX control PWB communication trouble (Parity error)
		Cause	Bad connection of FAX control PWB connector Harness trouble between Fax control PWB and MCU PWB Motherboard connector pin breakage FAX control PWB ROM trouble, data error
		Check and remedy	Check connection and harness between the FAX control PWB and the MCU PWB. Check grounding of the machine. Check the FAX control PWB ROM.
	82	Content	FAX control PWB trouble (Overrun)
		Detail	MCU-FAX control PWB communication trouble (Overrun error)
		Cause	Bad connection of FAX control PWB connector Harness trouble between Fax control PWB and MCU PWB Motherboard connector pin breakage FAX control PWB ROM trouble, data error
		Check and remedy	Check connection and harness between the FAX control PWB and the MCU PWB. Check grounding of the machine. Check the FAX control PWB ROM.
	84	Content	FAX control PWB trouble (Framing)
		Detail	MCU-FAX control PWB communication trouble (Framing error)
		Cause	Bad connection of FAX control PWB connector Harness trouble between Fax control PWB and MCU PWB Motherboard connector pin breakage FAX control PWB ROM trouble, data error
		Check and remedy	Check connection and harness between the FAX control PWB and the MCU PWB. Check grounding of the machine. Check the FAX control PWB ROM.
	88	Content	FAX control PWB trouble (Time out)
		Detail	MCU-FAX control PWB communication trouble (Time out error)
		Cause	Bad connection of FAX control PWB connector Harness trouble between Fax control PWB and MCU PWB Motherboard connector pin breakage FAX control PWB ROM trouble, data error
		Check and remedy	Check connection and harness between the FAX control PWB and the MCU PWB. Check grounding of the machine. Check the FAX control PWB ROM.

2. Communication error codes

A. Error code identification

Communication error xx (xxxx)

(In print out, the communication error display is made. In FAX status check, “NGxxxxxx” is displayed.

When transmission or reception is not executed normally due to disturbance in protocol signals and image signals by the trouble in the line, the code of 6 digits is displayed on the transmission result check menu (reception result check menu).

Upper 2 digits of a communication error code: 00 – 58 (error code) is displayed. (Communication result code)

Lower 4 digits of a communication error code: Error code1, Error code 2

1) Refer to the communication result code.
2) Refer to error code 1.
3) Refer to error code 2.

(Error code 1 other than V.34 mode is “00”.)

<Communication result code>

Error code (Communication result)	Communication report result column	Communication interruption content
0 – 31	For details of 0 – 31, refer to the communication result code.	Depends on the communication disconnection position. For 16 or later, V.34 mode communication.
33	Busy	The calling side cannot connect the line with the other party.
34	Cancel	An interruption command is made during transmission or reception. A reservation is canceled. An interruption command is entered with the interruption key.
35	Power OFF	Power OFF during transmission or reception
36	(Recording paper empty)	
37	(Recording paper jam)	
38	Reception memory over	Memory over during reception
39	(Discrepancy in the number of sheets)	
40	(Interface not accepted)	
41	Transmission length over	The length of transmission data of one page exceeds the range during transmission.
42	Reception length over	The length of reception data of one page exceeds the range during reception.
43	Communication (OK)	Communication enable before transmission
44	Document error	A document jam during direct transmission
45	(Image quality error)	
46	No response from the other party	The FAX signal from the other party cannot detect within T1 time.
47	(Communication error)	
48	OK	Communication normal end
49	No send request function on the other party	The other party has no send request function when receiving a send request. The other party has no data to send.
50	Send request not accepted	DCN is received for DTC when sending a send request. There is no data to send when sending a send request.
51	Send request enable number discrepancy	Discrepancy in the enable number when sending a send request. Discrepancy in the system number when sending a send request.
52	No confidential function on the other party	The other party has no confidential function when sending a confidential message. (Including the other company’s machines)
53	Confidential function not accepted	DCN is received for NSS when receiving a confidential message.
54	Confidential box No. NG	A confidential box number which is not registered is directed when receiving a confidential message.
55	No interface function on the other party	The other party has no interface function when sending an interface command.
56	Interface not accepted	DCN is received for NSS when sending an interface command. A receiving station number which is not registered is directed when receiving an interface command.
57	Interface ID discrepancy	Discrepancy in the interface ID when receiving an interface command.
58	Reception inhibition number	Transmission is made from a reception inhibition number.

<Communication result codes>

Error code	Final reception signal (Transmitting side)	Final reception signal (Receiving side)
0	Abnormal signal	Abnormal signal
1	NSF, DIS	NSS, DCS
2	CFR	NSC, DTC
3	FTT	EOP
4	MCF	EOM
5	PIP, PIN	MPS
6	RTN, RTP	PRI-Q
7	No signal	DCN
8	PPR	PPS-EOP
9		PPS-EOM
10		PPS-MPS, PPS-NULL
11	RNR	RR
12	CTR	CTC
13	ERR	EOR-Q
14		PPS-PRI-Q
15		
16	Abnormal signal	Abnormal signal
17	NSF, DIS	NSS, DCS
18	CFR	NSC, DTC
19	FTT	PPS-EOP
20	MCF	PPS-EOM
21	PIP, PIN	PPS-MPS, PPS-NULL
22	RTN, RTP	PRI-Q
23	No signal	DCN
24	PPR	
25	RNR	RR
26	CTR	CTC
27	ERR	EOR-Q
28		PPS-PRI-Q
29	V.8 Phase-1	V.8 Phase-1
30	V.8 Phase-2	V.8 Phase-2
31	V.8 Phase-3	V.8 Phase-3

(Note) For error codes 16 – 31, V.34 mode communication.

<Error codes 1>

21	Timeout standby for INFO0
22	Check sum error in INFO0
23	Timeout standby for tone A or B
24	Timeout standby for the first phase reversion
25	Timeout standby for cut off tone probing
26	Timeout standby for the second phase reversion
27	Timeout standby for probing end
28	Timeout standby for the third phase reversion
29	Timeout standby for INFO1
2A	Check sum error in INFO1
2B	Tone found before INFO1
2C	Unexpected INFO0 found
31	Timeout standby for turning off the reception control channel
91	Error in the first CC train
92	Timeout standby for PPh
93	Tone A/B detected in CC retrain
94	Timeout standby for ALT
95	Ach found
96	FED OFF with CC data
97	Timeout standby for turning off CC
A1	A trouble which cannot be solved in phase 2. Retrain is forcibly made.
B1	Trouble in S sequence of HDX-resync
B1	FED OFF in S sequence of HDX-resync
B2	Unexpected completion of S sequence in HDX-resync
B3	Timeout standby for S-Sbar in HDX-resync
B4	Timeout standby for S-Sbar in HDX-resync
B5	Timeout standby for S in HDX-resync
B6	Timeout for sync with PP
C0	Trouble in S sequence of phase 3
C1	FED OFF in S sequence of phase 3
C2	Unexpected completion of S sequence
C3	Timeout standby for S-Sbar of phase 3
C4	Timeout standby for S-Sbar of phase 3
C5	Timeout standby for S of phase 3
C7	Training due to TRN failure
D0	Trouble in S sequence of phase 4
D1	FED OFF in S sequence of phase 4
D2	Unexpected completion of S sequence
D3	Timeout standby for S-Sbar of phase 4
D4	Timeout standby for S-Sbar of phase 4
D5	Timeout standby for S of phase 4
D6	Timeout standby for MP
D8	Timeout standby for E
DA	Timeout at renegotiation of the transmitter rate
DB	Timeout at MPh of the transmitter
E2	Retrain detected in phase 2
E3	Retrain detected in phase 3
E4	Retrain detected in phase 4
FE	DTR OFF in retrain
FF	Tx setup port flag
71	Writing is not made to the first mapping frame.

<Error codes 2>

Error codes 2	Content of communication interruption	Transmission/ Reception
01	Transmission length over	Transmission
02	EOL time over	Reception
03	Carrier detection time up	Reception
04	Polarity reversion detection (in phase C)	Transmission/ Reception
05	8 min over (in phase C)	Transmission
06	Memory image decoding error	Reception
07	Memory image decoding error	Transmission
08	Time up between frames in phase C	Transmission/ Reception
10	Communication request NG	Reception
11	Polarity reversion detection	Reception
12	Invalid command reception	Reception
13	Time over (1min timer/6sec timer)	Reception
14	PUT error	Reception
15	Time out occurrence during shift from Primary to Control in V.34 mode	Reception
20	Polarity reversion detection	Transmission
21	Invalid command reception	Transmission
22	Fall back retry number over	Transmission
23	Resend over of retry number	Transmission
24	Time over (T5 timer)	Transmission
25	Time over (T5 timer) in V.34 mode	Transmission
26	Time out occurrence during shift from Primary to Control in V.34 mode	Transmission
30	Communication error due to communication abnormality between FAX_SUB and FAX_MAIN	Transmission/ Reception

CAUTION FOR BATTERY REPLACEMENT

(Danish) ADVARSEL !
Lithiumbatteri – Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri
af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandoren.

(English) Caution !
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type
recommended by the manufacturer.
Dispose of used batteries according to manufacturer's instructions.

(Finnish) VAROITUS
Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan
tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden
mukaisesti.

(French) ATTENTION
Il y a danger d'explosion s' il y a remplacement incorrect
de la batterie. Remplacer uniquement avec une batterie du
même type ou d'un type équivalent recommandé par
le constructeur.
Mettre au rebut les batteries usagées conformément aux
instructions du fabricant.

(Swedish) VARNING
Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en ekvivalent
typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt fabrikantens
instruktion.

(German) Achtung
Explosionsgefahr bei Verwendung inkorrekter Batterien.
Als Ersatzbatterien dürfen nur Batterien vom gleichen Typ oder
vom Hersteller empfohlene Batterien verwendet werden.
Entsorgung der gebrauchten Batterien nur nach den vom
Hersteller angegebenen Anweisungen.

SHARP

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SHARP **PARTS GUIDE**

CODE:00ZARFX2//P1E

DIGITAL COPIER
FAX EXPANSION KIT
(For USA/Canada)

MODEL AR-FX2

CONTENTS

1 FAX Key unit

2 Packing material & Accessories

3 FAX PWB unit

4 TEL/LIU PWB unit

5 FAX OP PWB unit

■ Index

SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

DEFINITION

The definition of each Rank is as follows and also noted in the list

A : Parts necessary to be stocked as High usage parts.

B : Parts necessary to be stocked as Standard usage parts.

C : Low usage parts.

D : Parts necessary for refurbish.

E : Unit parts recommended to be stocked for efficient after sales service.
Please note that the lead time for the said parts may be longer than normal parts.

S : Consumable parts.

Please note that the following parts used in Copier under the same description are classified into A or B Rank depending upon the place used.

Example: Gear made of Metal, Sprocket, Bearing, Belt made of Rubber, Spring clutch mechanism.

A Rank : The parts which may be with the revolution or loading.

B Rank : Parts similar to A Rank parts, but are not included in Rank A.

Because parts marked with "⚠" is indispensable for the machine safety maintenance and operation, it must be replaced with the parts specific to the product specification.

○ Other than this Parts Guide, please refer to documents Service Manual (including Circuit Diagram) of this model.
○ Please use the 13 digit code described in the right hand corner of front cover of the document, when you pleace an order.
○ For U.S. only-Use order codes provided in advertising literature. Do not order from parts department.

---

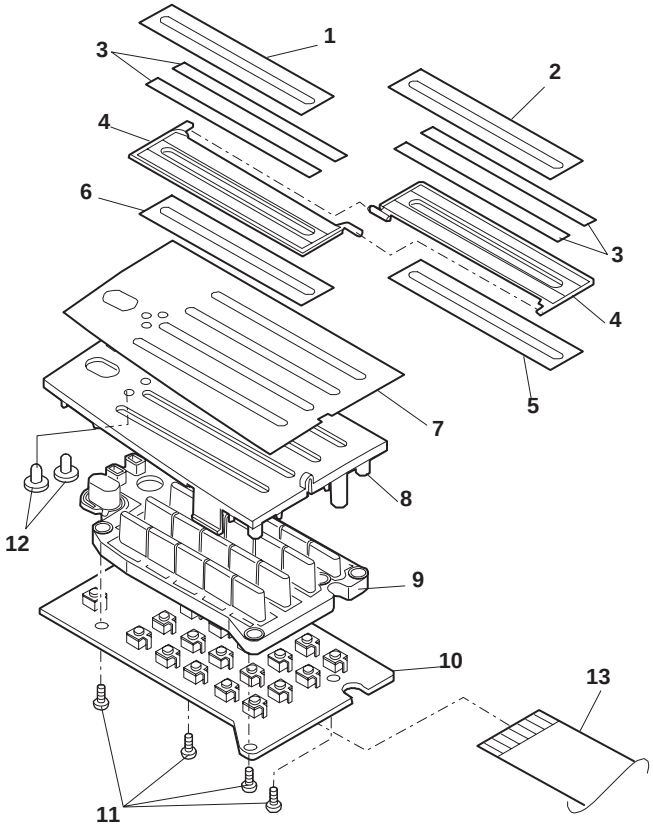
1 FAX Key unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	PSHEZ0117QSZ6	AH		C	FAX sheet 21
2	PSHEZ0117QSZ5	AH		C	FAX sheet 11
3	PWET-0001QSZZ	AD		C	Weight
4	GCŌVH0017QSZZ	AE		C	Change cover
5	PSHEZ0117QSZ1	AH		C	FAX sheet
6	PSHEZ0117QSZ4	AH		C	FAX sheet 01
7	HPNLH0012QSZ1	AS		C	FAX Dec. panel
8	GCAB-0020QSZZ	AG		C	FAX panel cabinet
9	JBTN-0025QSZZ	AK		C	Key
10	CPWBF0027QS51	BM		E	FAX OP PWB unit
11	XEBSD30P08000	AA		C	Screw (3×8)
12	MLEVP0042QSZZ	AC		C	Actuator
13	DHAi-0118QSZZ	AD		C	FAX harness
	(Unit)				
901	CCAB-0020QS52	BK	N	E	FAX key unit

2 Packing material & Accessories

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	DHAi-0131QSZZ	AK		C	Hand set cable
2	XEBSE40P12000	AA		C	Screw (4×12)
3	XEPSD30P08X00	AA		C	Screw (3×8X)
4	XBBSD30P06000	AA		C	Screw (3×6)
5	SSAKA0302CCZZ	AA		D	Vinyl bag
7	PSHEZ0179QSZZ	AB		C	Harness tape
9	TLABH0111QSZZ	AC		D	FAX seal
10	TLABZ0102QSZ1	AE		D	Note seal
11	SSAKA1130QCZZ	AA		D	Vinyl bag
12	RCŌRF0002QSZZ	AE		C	Core
13	QCNW-0159FCZZ	AM		C	FAX shield FFC harness
14	PSHEZ0178QSZZ	AE		C	Core sheet
15	SPAKA0170QSZZ	AL		D	Packing add
16	DUNTK0080QS60	AU		E	Speaker unit
17	QCNW-7197XCZZ	AH		C	Line cable
18	GCŌVH0024QSZZ	AF		C	FAX connector cover
19	SSAKH3012CCZZ	AA		D	Vinyl bag
20	CCAB-0020QS52	BK	N	E	FAX key unit
21	SPAKP2374ACZZ	AD		D	Vinyl bag
22	CPWBN0061QS51	BN	N	E	TEL/LIU PWB unit
23	SPAKA5780FCZZ	AF		D	Packing add
24	SPAKA399ACCZZ	AB		D	Vinyl bag
25	CPWBX0032QS52	CS	N	E	FAX PWB unit
27	TCADZ0089QSZZ	AE		D	FAX inst. book
28	CiNSE0282QS51	AG	N	D	Multi access manual
29	CiNSE0141QS51	BE	N	D	FAX OP manual
30	SPAKC0149QS11	AL		D	Packing case

1 FAX Key unit



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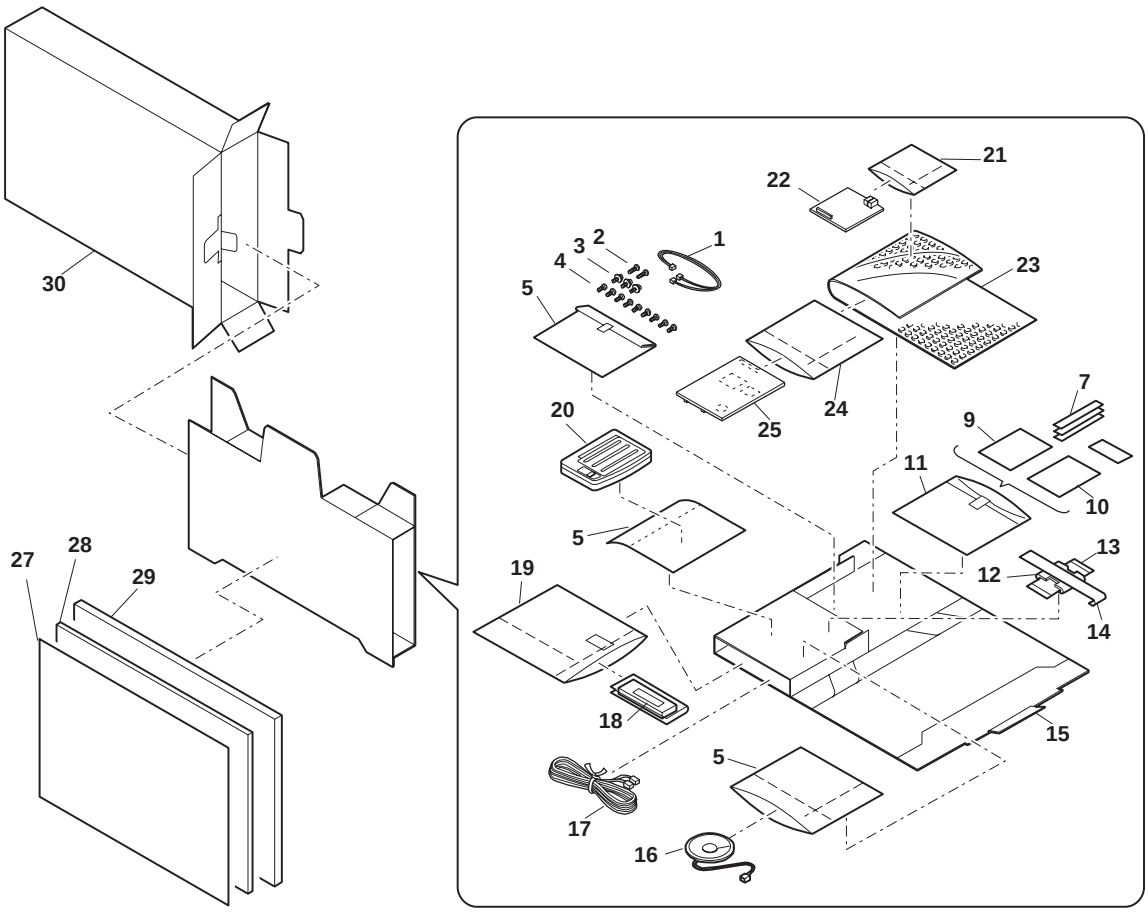
2 Packing material & Accessories



FCP03751

3 FAX PWB unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	KMEC-0001QSZZ	AQ		C	Connector ejector (ICM-MBE-L-300HA)
2	LPLTM0151QSZZ	AD		C	FAX heat sink
3	PCOVP1468FCZZ	AD		C	FAX battery cover
4	PSHEZ0192QSZZ	AA	N	C	FAX insulation sheet
5	QCNCM0028QSZZ	AS		C	Connector (ICM-MB68H-S) [CN2]
6	QCNCM0991FCZZ	AG		C	Connector (30FMZ-BT) [CN4]
7	QCNCM7014SC0B	AD		C	Connector (2pin) [CN5]
8	QCNCW0027QSZZ	AL		C	Connector (TX24-60R6ST) [CN3]
9	RC-CZ1091CCZZ	AB		C	Capacitor (12WV 1μF) [C50,113,117,121]
10	RCRS-0033FCZZ	AG		B	Crystal (8.192MHz) [X6]
11	RCRS-0034FCZZ	AH		B	Crystal (52.416MHz) [X5]
12	RCRSP6676RCZZ	AG		B	Crystal (32.768KHz) [X2]
13	RCRSQ1010LCZZ	AL		B	Crystal (19.66MHz) [X1]
14	RCRSZ0004QSZZ	AP		B	Crystal (20.3094MHz) [X4]
15	RCRSZ0009QSZZ	AQ		B	Crystal (30.000MHz) [X3]
16	RFiLZ0030FCZZ	AC		C	Filter (10uH 10%) [L1]
17	RMPTW4100QCJJ	AA		B	Block resistor (10Ω ×4) [BR35~44]
18	RMPTW4103QCJJ	AB		B	Block resistor (10KΩ ×4) [BR2,4,6,8,10,12,14,16,18,21,22,24,26~30,46,48,50,52,54,56,58,60,62~64,80,87~91)]
19	RMPTW4220QCJJ	AB		B	Block resistor (22Ω ×4) [BR1,3,5,7,9,11,13,15,17,19,20,23,45,47,49,51,53,55,57,59,61,66,67,69,71,73,75,77,78,79,81~86]
20	UBATi0014FCZZ	AN		B	Battery (CR2477-H01) [BT1]
21	VCCCCY1HH100D	AA		C	Capacitor (50WV 10pF) [CO20,21]
22	VCCCCY1HH220J	AA		C	Capacitor (50WV 22pF) [C10,11]
24	VCCCCY1HH330J	AA		C	Capacitor (50WV 33pF) [C12,24,156,157]
25	VCCCCY1HH8R0D	AA		C	Capacitor (50WV 8.0pF) [C123~125]
26	VCEAPS1CC106M	AC		C	Capacitor (16WV 10μF) [C115,118,119,126,127]
27	VCEAPS1CC336M	AF		C	Capacitor (16WV 33μF) [C28,29,36,55,58,92,95,134,172]
28	VCEAPS1EC106M	AC		C	Capacitor (25WV 10μF) [C42~44]
29	VCEAPS1HC105M	AC		C	Capacitor (50WV 1.0μF) [C154,155]
30	VCEAPS1HC106M	AD		C	Capacitor (50WV 1μF) [C83]
31	VCEAPS1HC475M	AC		C	Capacitor (50WV 4.7μF) [C162,166,167]
32	VCEAPS1VC336M	AC		C	Capacitor (35WV 33μF) [C133]
33	VCEAPZ1EW476M	AE		C	Capacitor (25WV 47μF) [C149,168,170]
34	VCKYCY1EF104Z	AA		C	Capacitor (25WV 0.10μF) [C13~19,26,30~35,37,38,41,45~49]
	VCKYCY1EF104Z	AA		C	Capacitor (25WV 0.10μF) [C51~54,56,57,59,60,61]
	VCKYCY1EF104Z	AA		C	Capacitor (25WV 0.10μF) [C65~74,77~80,85,90,91,93,94]
	VCKYCY1EF104Z	AA		C	Capacitor (25WV 0.10μF) [C96,97,98,101~103,107,108,116]
	VCKYCY1EF104Z	AA		C	Capacitor (25WV 0.10μF) [C120,122,128~132,135~141,143]
	VCKYCY1EF104Z	AA		C	Capacitor (25WV 0.10μF) [C144,148,150~153,158~161,164,169,171]
35	VCKYCY1HB101K	AA		C	Capacitor (50WV 100pF) [C27,75,84,173]
36	VCKYCY1HB102K	AA		C	Capacitor (50WV 1000pF) [C76,163]
37	VCKYCY1HB222K	AA		C	Capacitor (50WV 2200pF) [C25,62,63,64,114]
38	VCKYCY1HB471K	AB		C	Capacitor (50WV 470pF) [C112,142,145]
39	VCKYCY1HB472K	AA		C	Capacitor (50WV 4700pF) [C99,104]
40	VCKYCY1HF103Z	AA		C	Capacitor (50WV 0.010μF) [C23]
41	VCKYTQ1EB104K	AA		C	Capacitor (25WV 0.10μF) [C109~111]
42	VCKYTQ1HF104Z	AA		C	Capacitor (50WV 0.10μF) [C81,82]
43	VHDDAP202U/-1	AB		B	Diode (DAP202U) [D1]
44	VHD1SS355//-1	AB		B	Diode (1SS355) [D2,3,4]
45	VHEMTZJ10C/-1	AC		B	Zener diode (MTZJT-72-10C) [ZD1]
46	VHiALS244CNS1	AL		B	IC (74ALS244F) [IC24,27,28,32,36]
47	VHiiDP201////	BD		B	IC (HD813201F) [IC31]
48	VHiCY7C102112	AX		B	IC (CY7C102112) [IC23]
49	VHiLM393PS/-S	AC		B	IC (LM393PS) [IC13]
50	VHiMSM6789A-1	BA		B	IC (MSM6789AGS) [IC46]
51	VHiMSM82C55GS	AS		B	IC (MSM82C55A) [IC29,30]
52	VHiM5M5106BT	AZ		B	IC (M5M5106BTP) [IC7]
53	VHiM66236FP-1	AT		B	IC (M66236FP) [IC4]
54	VHiNJM2113M-1	AG		B	IC (NJM2113-M) [IC47]
55	VHiNJM2902M-1	AF		B	IC (NJM2902M) [IC41]
56	VHiNJM2904M/-	AD		B	IC (NJM2904M) [IC44,45]
57	VHiNJM78L05A1	AD		B	IC (NJM78L05A1) [IC43]
58	VHiNJM78M12-1	AG		B	IC (NJM78M12) [IC42]
59	VHiNJU6356E-1	AK		B	IC (NJU6356E) [IC2]
60	VHiPF016SU70/	BF		B	IC (LH28F016SUT) [IC5,17]
61	VHiPST591CMT1	AE		B	IC (PST591CMT1) [IC18]
62	VHiR288F///-1	BF		B	IC (R6713-22) [IC40]
63	VHiSC65165V6T	BW		B	IC (HM5165LTT) [IC22]
64	VHiSN74HC04NS	AC		B	IC (SN74HC04NS) [IC20]
65	VHiSN74HC14NS	AE		B	IC (SN74HC14NS) [IC19]
66	VHiSN74LS06NS	AF		B	IC (SN74LS06NS) [IC21]
67	VHiTCHC4051AF	AG		B	IC (74AC4051AF) [IC38]
68	VHiTCHC4052AF	AG		B	IC (74HC4052SF) [IC37,39]
69	VHiTC7S32F/-1	AC		B	IC (TC7S32FTPR) [IC51]
70	VHi4M16S0J-60	AV		B	IC (HY514264JC) [IC9]

3 FAX PWB unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
71	VHi64770 21X20	BM		B	CPU (HD6477021TE) [IC1]
72	VHi65954GL041	BR		B	IC (UPD65954GL) [IC3]
73	VHi74ALS157NS	AK		B	IC (74ALS157F) [IC10,12,15]
74	VHi74ALS245NS	AM		B	IC (74ALS245NS) [IC25,26]
75	VHi74ALS374NS	AM		B	IC (74ALS374NS) [IC8,11]
76	VHi74ALS541NS	AK		B	IC (74ALS541NS) [IC14,16]
77	VHPGL3PR8//-1	AA		B	Phote transistor (GL3PR8) [LED1,2]
78	VRS-CY1JD000J	AA		C	Resistor (1/16W 0Ω ± 5%) [R85,164,166,168,170,183,202,204,207,210,246,253,275,279,285,286,288,289,291,296,]
	VRS-CY1JD000J	AA		C	Resistor (1/16W 0Ω ± 5%) [R298,302,312,366,395~398,400,403,404,406,408,409, 411,412,425,428,429,439,441,443,447,449,463,478]
79	VRS-CY1JD100J	AA		C	Resistor (1/16W 10Ω ±5%) [R21,178,184~188,190,193,194,196,334~338,341~343,345,347,349,350,351,355,356,358,362]
80	VRS-CY1JD101J	AA		C	Resistor (1/16W 100Ω ±5%) [R368,417,418]
81	VRS-CY1JD102J	AA		C	Resistor (1/16W 1.0KΩ ±5%) [R173,177,317]
82	VRS-CY1JD103F	AB		C	Resistor (1/16W 10KΩ ±1%) [R375]
83	VRS-CY1JD103J	AA		C	Resistor (1/16W 10KΩ ±5%) [R6,7,9,10,12,13,16,17,19,23,25~36,39,41,42,45~48,50,52,54,57~68,]
	VRS-CY1JD103J	AA		C	Resistor (1/16W 10KΩ ±5%) [R80,82,86,88,90,92,94,96,98,100,102,104,106,107,110,111,114,115]
	VRS-CY1JD103J	AA		C	Resistor (1/16W 10KΩ ±5%) [R118,119,122,123,126,128,130,132,134,136,138,141,143,146,154~156,199]
	VRS-CY1JD103J	AA		C	Resistor (1/16W 10KΩ ±5%) [R203,206,208,209,235,250,254,259,260~274,276~278, 280, 281,283,295,314,320,325,326~328,339,344]
	VRS-CY1JD103J	AA		C	Resistor (1/16W 10KΩ ±5%) [R348,352,353,359,361,384,392,393,405,413,414,415,419, 420,422~424,427,431~437,456,457,462,468,472,475]
84	VRS-CY1JD104F	AA		C	Resistor (1/16W 100KΩ ±1%) [R377]
85	VRS-CY1JD104J	AA		C	Resistor (1/16W 100KΩ ±5%) [R174,189,191,195,197,333,387,401]
86	VRS-CY1JD163J	AA		C	Resistor (1/16W 16KΩ ±5%) [R319]
87	VRS-CY1JD202J	AA		C	Resistor (1/16W 2.0KΩ ±5%) [R201]
88	VRS-CY1JD220J	AA		C	Resistor (1/16W 22Ω ±5%) [R3,15,18,20,22,37,43,49,51,53,69~74,76~79,81,83,84,89,91,93,95,97,99,]
	VRS-CY1JD220J	AA		C	Resistor (1/16W 22Ω ±5%) [R101,103,105,108,109,112,113,116,117,120,121,124,125, 127,129,131,133,135,137,140,142,144,147~150,153,]
	VRS-CY1JD220J	AA		C	Resistor (1/16W 22Ω ±5%) [R304,306,381,382,388,389,426,458,459,460,476,477]
89	VRS-CY1JD223J	AA		C	Resistor (1/16W 22KΩ ±5%) [R416,438]
90	VRS-CY1JD243F	AA		C	Resistor (1/16W 24KΩ ±1%) [R376]
91	VRS-CY1JD302J	AA		C	Resistor (1/16W 3.0KΩ ±5%) [R315,330]
92	VRS-CY1JD330J	AA		C	Resistor (1/16W 30Ω ±5%) [R300,301]
93	VRS-CY1JD332J	AA		C	Resistor (1/16W 3.3KΩ ±5%) [R407]
94	VRS-CY1JD333F	AA		C	Resistor (1/16W 33KΩ ±1%) [R379]
95	VRS-CY1JD333J	AA		C	Resistor (1/16W 33KΩ ±-5%) [R332,369,370,373,374]
96	VRS-CY1JD364J	AA		C	Resistor (1/16W 360KΩ ±5%) [R322]
97	VRS-CY1JD472J	AA		C	Resistor (1/16W 4.7KΩ ±5%) [R1,2,4,5,8,181,182,198,205,249,380,386,421,473]
98	VRS-CY1JD473J	AA		C	Resistor (1/16W 47KΩ ±5%) [R329,364]
99	VRS-CY1JD562J	AA		C	Resistor (1/16W 5.6KΩ ±5%) [R282,284,290,292~294,297,299]
100	VRS-CY1JD563J	AA		C	Resistor (1/16W 56KΩ ±5%) [R313,316,321,323]
101	VRS-CY1JD622J	AA		C	Resistor (1/16W 6.2KΩ ±5%) [R138]
102	VRS-CY1JD753J	AA		C	Resistor (1/16W 75KΩ ±5%) [R324,402]
103	VRS-CY1JD823J	AA		C	Resistor (1/16W 82KΩ ±5%) [R715]
104	VRS-TP2BD000J	AA		C	Resistor (1/8W 0Ω ±5%) [FB1,2,5~11,13~16,308~311,383,385,410,500]
105	VRS-TP2BD200J	AA		C	Resistor (1/8W 20Ω ± 5%) [FB12]
106	VRS-TP2BD332J	AA		C	Resistor (1/8W 3.3KΩ ±5%) [R176]
107	VRS-TS2AD391J	AA		C	Resistor (1/10W 390Ω ±5%) [R55,56]
108	VRS-TW2ED910J	AA		C	Resistor (1/4W 91KΩ ±5%) [R367]
109	VRS-TX2HD000J	AB		C	Resistor (1/2W 0Ω ±5%) [R371]
110	VRS-TX2HD331J	AC		C	Resistor (1/2W 330Ω ±5%) [R172]
111	VRS-TX2HD910J	AA		C	Resistor (1/2W 91Ω ±5%j [R372]
112	VRSCY1JD1373F	AA		C	Resistor (1/16W 137KΩ ±1%) [R365]
113	VRSCY1JD4422F	AA		C	Resistor (1/16W 44.2KΩ ±1%) [R340,346,354,357]
114	VRSCY1JD4703F	AA		C	Resistor (1/16W 470KΩ ±1%) [R378]
115	VRSCY1JD6812F	AA		C	Resistor (1/16W 68.1KΩ ±1%) [R363]
116	VSDTA114EK/-1	AB		B	Transistor (DTA114EK) [Q3]
117	VSDTC114EK/-1	AB		B	Transistor (DTC114EK) [Q1,2,4~10]
118	XBBSD30P08000	AA		C	Screw (3×8)
119	XBPSD20P05000	AA		C	Screw (2×5)
120	XEBSD30P08000	AA		C	Screw (3×8)
121	XNGSN30-18000	AC		C	Nut (3mm)
	(Unit)				
901	CPWBX0032QS52	CS	N	E	FAX PWB unit

4 TEL/LIU PWB unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION	
1	QCNCM0991FCZZ	AG		C	Connector (30pin)	[CNLIU1]
2	QJAKZ2024SCFB	AE		C	Modular jack (TM5RE1-62)	[MJ1,MJ2]
3	RC-EZ106NSC1C	AB		C	Capacitor (16WV 10μF)	[C21]
4	RC-KZ102BRC2H	AC	N	C	Capacitor (500WV 1000pF)	[C8]
5	RCiLZ0008QSZZ	AD	N	C	Coil (LHL08-102J)	[L50]
6	RCiLZ0089FCZZ	AG		C	Coil (ST110AV)	[L4]
7	RFiLN2011SCZZ	AC		C	Coil (SBT-0260)	[L5,6,9,10]
8	RRLYD3213QCZZ	AH		B	Relay (OUAZ-SH-112)	[CML2,S1]
9	RTRNZ0007QSZZ	AN		B	Transformer	[T1]
10	RTRNZ0008QSZZ	AT		B	Transformer	[T2]
11	TLABF0175QSZZ	AC	N	D	FCC label JPN	
12	VCCCTV1HH101J	AA		C	Capacitor (50WV 100pF)	[C116]
13	VCCCTV1HH221J	AA		C	Capacitor (50WV 220pF)	[C114,118]
14	VCEAZA1EW476M	AC		C	Capacitor (25WV 47μF)	[C18,20,24]
15	VCEAZA1HW105M	AB		C	Capacitor (50WV 1.0μF)	[C13]
16	VCEAZA1HW225M	AB		C	Capacitor (50WV 2.2μF)	[C10,16]
17	VCEAZA1HW334M	AB		C	Capacitor (50WV 0.33μF)	[C9]
18	VCEAZA1HW475M	AB		C	Capacitor (50WV 4.7μF)	[C14,15,19]
19	VCFYJU2AA824K	AF		C	Capacitor (100WV 0.82μF)	[C4,50]
20	VCFYJU2EA105K	AE		C	Capacitor (250WV 1μF)	[C7]
21	VCKYTV1EB683K	AC		C	Seramic Capacitor (25WV 0.068μF)	[C119,201]
22	VCKYTV1EF104Z	AA		C	Capacitor (25WV 0.10μF)	[C102,108,110,112,113,117,120,125,126]
23	VCKYTV1HB102K	AA		C	Capacitor (50WV 1000PF)	[C122,124]
24	VCKYTV1HB183K	AA		C	Capacitor (50WV 0.018μF)	[C123]
25	VCQYNU1HM223K	AA		C	Capacitor (50WV 0.022μF)	
26	VHD0R5G4B42-1	AF		B	Diode (0R5G4B42)	[REC1]
27	VHD1SS355//-1	AB		B	Diode (1SS355)	[D1,50,51]
28	VHEHZS2C1//-1	AB		B	Zener diode (HZS2C1)	[ZD51~54]
29	VHEHZS3B1//-1	AC		B	Zener diode (HZS3B1)	[ZD4,5]
30	VHEMTZJ10C/-1	AC		B	Zener diode (MTZJ10C)	[ZD12]
31	VHEMTZJ30B/-1	AB	N	B	Zener diode (MTZJ30B)	[ZD50]
32	VHEMTZJ8.2B-1	AB		B	Zener diode (MTZJ8.2B)	[ZD3]
33	VHERD33EB1/-1	AB		B	Zener diode (RD33EB1)	[ZD2]
34	VHERD4.7EB/-1	AD		B	Zener diode (RD4.7EB)	[ZD8~11]
35	VHiBU4066BCF1	AD		B	IC (BU4066BCF1)	[IC104]
36	VHiNJM3414M-1	AF		B	IC (NJM3414M)	[IC106,107]
37	VHiNJM4558MF1	AE		B	IC (NJM4558MF1)	[IC109]
38	VHiTHS56F//-1	AS		B	IC (THS56F)	[IC1]
39	VHPTLP620-1GB	AH		B	Photo transistor (TLP620)	[PC4]
40	VHPTLP621-1GB	AF		B	Photo transistor (TLP621)	[PC2,3]
41	VHVDSS-401M//	AH	N	B	Arrestor (DSS-401M)	[SA50]
42	VHVTNR5V471K/	AD		B	Varistor (TNR5V471K)	[SA51]
43	VHVTN07G101-1	AB		B	Varistor (TN07G101)	[VA1]
44	VRD-RC2EY100J	AA		C	Resistor (1/4W 10Ω ±5%)	[R3]
45	VRD-RC2EY750J	AA		C	Resistor (1/4W 75Ω ±5%)	[R7]
46	VRS-RA3AA153J	AB	N	C	Resistor (1W 15KΩ ±5%)	[R2]
47	VRS-TP2BD300J	AA		C	Resistor (1/8W 30Ω ±5%)	[R142]
48	VRS-TP2BD910J	AA		C	Resistor (1/8W 91Ω ±5%)	[R143]
49	VRS-TS2AD000J	AA		C	Resistor (1/10W 0Ω ±5%)	[R136,168,JP200,201]
50	VRS-TS2AD103J	AA		C	Resistor (1/10W 10KΩ ±5%)	[R124,149,150,163,164]
51	VRS-TS2AD104J	AA		C	Resistor (1/10W 100KΩ ±5%)	[R122,141]
52	VRS-TS2AD113J	AA		C	Resistor (1/10W 11KΩ ±5%)	[R160]
53	VRS-TS2AD124J	AA		C	Resistor (1/10W 120KΩ ±5%)	[R138]
54	VRS-TS2AD153J	AA		C	Resistor (1/10W 15KΩ ±5%)	[R147]
55	VRS-TS2AD183J	AA		C	Resister (1/10W 18KΩ ±5%)	[R139,146,151]
56	VRS-TS2AD202J	AA		C	Resistor (1/10W 2KΩ ±5%)	[R137]
57	VRS-TS2AD203J	AA		C	Resistor (1/10W 20KΩ ±5%)	[R167]
58	VRS-TS2AD221J	AA		C	Resistor (1/10W 220Ω ±5%)	[R131]
59	VRS-TS2AD222J	AA		C	Resistor (1/10W 2.2KΩ ±5%)	[R123]
60	VRS-TS2AD223J	AA		C	Resistor (1/10W 22KΩ ±5%)	[R121,144,152,161,162,169,204,205]
61	VRS-TS2AD224J	AA		C	Resistor (1/10W 220KΩ ±5%)	[R140]
62	VRS-TS2AD273J	AA		C	Resistor (1/10W 27KΩ ±5%)	[R153,155]
63	VRS-TS2AD303J	AA		C	Resistor (1/10W 30KΩ ±5%)	[R159]
64	VRS-TS2AD304J	AA		C	Resistor (1/10W 300KΩ ±5%)	
65	VRS-TS2AD332J	AA		C	Resistor (1/10W 3.3KΩ±5%)	[R201]
66	VRS-TS2AD471J	AA		C	Resistor (1/10W 470Ω ±5%)	[R156]
67	VRS-TS2AD513J	AA		C	Resistor (1/10W 51KΩ ±5%)	[R158]
68	VRS-TS2AD621J	AA		C	Resistor (1/10W 620Ω ±5%)	[R154,157]
69	VRS-TS2AD822J	AA		C	Resistor (1/10W 8.2KΩ ±5%)	[R145]
70	VRS-TS2AD913J	AA		C	Resistor (1/10W 91KΩ ±5%)	[R148]
71	VSDTC114EK/-1	AB		B	Transistor (DTC114EK)	[Q108,110,111,113,200,201]
72	VS2SA1807-P-1	AE		B	Transistor (2SA1807-P)	[Q112]
73	VS2SC2412KS-1	AB		B	Transistor (2SC2412KS)	[Q109]
74	VS2SC3415-P-1	AP		B	Transistor (2SC3415-P)	[Q1]
75	VS2SD1266A0-1	AF		B	Transistor (2SD1266A0)	[Q3]
76	VS2SD592A-S-1	AK		B	Transistor (2SD592A-S)	[Q4]
	(Unit)					
901	CPWBN0061QS51	BN	N	E	TEL/LIU PWB unit	

5 FAX OP PWB unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	QCNCW0023QSZZ	AE		C	Connector (19pin)
2	QSW-P0008QSZZ	AC		B	Push switch
3	QSW-P0010QSZZ	AE		B	Push switch
4	VHPMPG3864K-J	AC		B	LED (MPG3864K)
	(Unit)				
901	CPWBF0027QS51	BM		E	FAX OP PWB unit

■ Index

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
【C】					
CCAB-0020QS52	1-901	BK	N	E	
〃	2- 20	BK	N	E	
CiNSE0141QS51	2- 29	BE	N	D	
CiNSE0282QS51	2- 28	AG	N	D	
CPWBF0027QS51	1- 10	BM		E	
〃	5-901	BM		E	
CPWBN0061QS51	2- 22	BN	N	E	
〃	4-901	BN	N	E	
CPWBX0032QS52	2- 25	CS	N	E	
〃	3-901	CS	N	E	
【D】					
DHAi-0118QSZZ	1- 13	AD		C	
DHAi-0131QSZZ	2- 1	AK		C	
DUNTK0080QS60	2- 16	AU		E	
【G】					
GCAB-0020QSZZ	1- 8	AG		C	
GCŌVH0017QSZZ	1- 4	AE		C	
GCŌVH0024QSZZ	2- 18	AF		C	
【H】					
HPNLH0012QSZ1	1- 7	AS		C	
【J】					
JBTN-0025QSZZ	1- 9	AK		C	
【K】					
KMEC-0001QSZZ	3- 1	AQ		C	
【L】					
LPLTM0151QSZZ	3- 2	AD		C	
【M】					
MLEVP0042QSZZ	1- 12	AC		C	
【P】					
PCŌVP1468FCZZ	3- 3	AD		C	
PSHEZ0117QSZ1	1- 5	AH		C	
PSHEZ0117QSZ4	1- 6	AH		C	
PSHEZ0117QSZ5	1- 2	AH		C	
PSHEZ0117QSZ6	1- 1	AH		C	
PSHEZ0178QSZZ	2- 14	AE		C	
PSHEZ0179QSZZ	2- 7	AB		C	
PSHEZ0192QSZZ	3- 4	AA	N	C	
PWET-0001QSZZ	1- 3	AD		C	
【Q】					
QCNCM0028QSZZ	3- 5	AS		C	
QCNCM0991FCZZ	3- 6	AG		C	
〃	4- 1	AG		C	
QCNCM7014SC0B	3- 7	AD		C	
QCNCW0023QSZZ	5- 1	AE		C	
QCNCW0027QSZZ	3- 8	AL		C	
QCNW-0159FCZZ	2- 13	AM		C	
QCNW-7197XCZZ	2- 17	AH		C	
QJAKZ2024SCFB	4- 2	AE		C	
QSW-P0008QSZZ	5- 2	AC		B	
QSW-P0010QSZZ	5- 3	AE		B	
【R】					
RC-CZ1091CCZZ	3- 9	AB		C	
RC-EZ106NSC1C	4- 3	AB		C	
RC-KZ102BRC2H	4- 4	AC	N	C	
RCiLZ0008QSZZ	4- 5	AD	N	C	
RCiLZ0089FCZZ	4- 6	AG		C	
RCŌRF0002QSZZ	2- 12	AE		C	
RCRS-0033FCZZ	3- 10	AG		B	
RCRS-0034FCZZ	3- 11	AH		B	
RCRSP6676RCZZ	3- 12	AG		B	
RCRSQ1010LCZZ	3- 13	AL		B	
RCRSZ0004QSZZ	3- 14	AP		B	
RCRSZ0009QSZZ	3- 15	AQ		B	
RFiLN2011SCZZ	4- 7	AC		C	
RFiLZ0030FCZZ	3- 16	AC		C	
RMPTW4100QCJJ	3- 17	AA		B	
RMPTW4103QCJJ	3- 18	AB		B	
RMPTW4220QCJJ	3- 19	AB		B	
RRLYD3213QCZZ	4- 8	AH		B	
RTRNZ0007QSZZ	4- 9	AN		B	
RTRNZ0008QSZZ	4- 10	AT		B	
【S】					
SPAKA0170QSZZ	2- 15	AL		D	
SPAKA399ACCZZ	2- 24	AB		D	
SPAKA5780FCZZ	2- 23	AF		D	
SPAKC0149QS11	2- 30	AL		D	
SPAKP2374ACZZ	2- 21	AD		D	
SSAKA0302CCZZ	2- 5	AA		D	
SSAKA1130QCZZ	2- 11	AA		D	
SSAKH3012CCZZ	2- 19	AA		D	
【T】					
TCADZ0089QSZZ	2- 27	AE		D	
TLABF0175QSZZ	4- 11	AC	N	D	
TLABH0111QSZZ	2- 9	AC		D	
TLABZ0102QSZ1	2- 10	AE		D	
【U】					
UBATi0014FCZZ	3- 20	AN		B	
【V】					
VCCCCY1HH100D	3- 21	AA		C	
VCCCCY1HH220J	3- 22	AA		C	
VCCCCY1HH330J	3- 24	AA		C	
VCCCCY1HH8R0D	3- 25	AA		C	
VCCCTV1HH101J	4- 12	AA		C	
VCCCTV1HH221J	4- 13	AA		C	
VCEAPS1CC106M	3- 26	AC		C	
VCEAPS1CC336M	3- 27	AF		C	
VCEAPS1EC106M	3- 28	AC		C	
VCEAPS1HC105M	3- 29	AC		C	
VCEAPS1HC106M	3- 30	AD		C	
VCEAPS1HC475M	3- 31	AC		C	
VCEAPS1VC336M	3- 32	AC		C	
VCEAPZ1EW476M	3- 33	AE		C	
VCEAZA1EW476M	4- 14	AC		C	
VCEAZA1HW105M	4- 15	AB		C	
VCEAZA1HW225M	4- 16	AB		C	
VCEAZA1HW334M	4- 17	AB		C	
VCEAZA1HW475M	4- 18	AB		C	
VCFYJU2AA824K	4- 19	AF		C	
VCFYJU2EA105K	4- 20	AE		C	
VCKYCY1EF104Z	3- 34	AA		C	
VCKYCY1HB101K	3- 35	AA		C	
VCKYCY1HB102K	3- 36	AA		C	
VCKYCY1HB222K	3- 37	AA		C	
VCKYCY1HB471K	3- 38	AB		C	
VCKYCY1HB472K	3- 39	AA		C	
VCKYCY1HF103Z	3- 40	AA		C	
VCKYTQ1EB104K	3- 41	AA		C	
VCKYTQ1HF104Z	3- 42	AA		C	
VCKYTV1EB683K	4- 21	AC		C	
VCKYTV1EF104Z	4- 22	AA		C	
VCKYTV1HB102K	4- 23	AA		C	
VCKYTV1HB183K	4- 24	AA		C	
VCQYNU1HM223K	4- 25	AA		C	
VHD0R5G4B42-1	4- 26	AF		B	
VHD1SS355//-1	3- 44	AB		B	
〃	4- 27	AB		B	
VHDDAP202U/-1	3- 43	AB		B	
VHEHZS2C1//-1	4- 28	AB		B	
VHEHZS3B1//-1	4- 29	AC		B	
VHEMTZJ10C/-1	3- 45	AC		B	
〃	4- 30	AC		B	
VHEMTZJ30B/-1	4- 31	AB	N	B	
VHEMTZJ8.2B-1	4- 32	AB		B	
VHERD33EB1/-1	4- 33	AB		B	
VHERD4.7EB/-1	4- 34	AD		B	
VHi4M16S0J-60	3- 70	AV		B	
VHi6477021X20	3- 71	BM		B	
VHi65954GL041	3- 72	BR		B	
VHi74ALS157NS	3- 73	AK		B	
VHi74ALS245NS	3- 74	AM		B	
VHi74ALS374NS	3- 75	AM		B	
VHi74ALS541NS	3- 76	AK		B	
VHiALS244CNS1	3- 46	AL		B	
VHiBU4066BCF1	4- 35	AD		B	
VHiCY7C102112	3- 48	AX		B	
VHiiDP201////	3- 47	BD		B	
VHiLM393PS/-S	3- 49	AC		B	
VHiM5M51016BT	3- 52	AZ		B	
VHiM66236FP-1	3- 53	AT		B	
VHiMSM6789A-1	3- 50	BA		B	
VHiMSM82C55GS	3- 51	AS		B	
VHiNJM2113M-1	3- 54	AG		B	
VHiNJM2902M-1	3- 55	AF		B	
VHiNJM2904M/-	3- 56	AD		B	
VHiNJM3414M-1	4- 36	AF		B	
VHiNJM4558MF1	4- 37	AE		B	
VHiNJM78L05A1	3- 57	AD		B	
VHiNJM78M12-1	3- 58	AG		B	
VHiNJU6356E-1	3- 59	AK		B	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
VHiPF016SU70/	3- 60	BF		B	
VHiPST591CMT1	3- 61	AE		B	
VHiR288F///-1	3- 62	BF		B	
VHiSC65165V6T	3- 63	BW		B	
VHiSN74HC04NS	3- 64	AC		B	
VHiSN74HC14NS	3- 65	AE		B	
VHiSN74LS06NS	3- 66	AF		B	
VHiTC7S32F/-1	3- 69	AC		B	
VHiTCHC4051AF	3- 67	AG		B	
VHiTCHC4052AF	3- 68	AG		B	
VHiTHS56F//-1	4- 38	AS		B	
VHPGL3PR8//-1	3- 77	AA		B	
VHPMPG3864K-J	5- 4	AC		B	
VHPTLP620-1GB	4- 39	AH		B	
VHPTLP621-1GB	4- 40	AF		B	
VHVDSS-401M//	4- 41	AH	N	B	
VHVTN07G101-1	4- 43	AB		B	
VHVTNR5V471K/	4- 42	AD		B	
VRD-RC2EY100J	4- 44	AA		C	
VRD-RC2EY750J	4- 45	AA		C	
VRS-CY1JD000J	3- 78	AA		C	
VRS-CY1JD100J	3- 79	AA		C	
VRS-CY1JD101J	3- 80	AA		C	
VRS-CY1JD102J	3- 81	AA		C	
VRS-CY1JD103F	3- 82	AB		C	
VRS-CY1JD103J	3- 83	AA		C	
VRS-CY1JD104F	3- 84	AA		C	
VRS-CY1JD104J	3- 85	AA		C	
VRS-CY1JD163J	3- 86	AA		C	
VRS-CY1JD202J	3- 87	AA		C	
VRS-CY1JD220J	3- 88	AA		C	
VRS-CY1JD223J	3- 89	AA		C	
VRS-CY1JD243F	3- 90	AA		C	
VRS-CY1JD302J	3- 91	AA		C	
VRS-CY1JD330J	3- 92	AA		C	
VRS-CY1JD332J	3- 93	AA		C	
VRS-CY1JD333F	3- 94	AA		C	
VRS-CY1JD333J	3- 95	AA		C	
VRS-CY1JD364J	3- 96	AA		C	
VRS-CY1JD472J	3- 97	AA		C	
VRS-CY1JD473J	3- 98	AA		C	
VRS-CY1JD562J	3- 99	AA		C	
VRS-CY1JD563J	3-100	AA		C	
VRS-CY1JD622J	3-101	AA		C	
VRS-CY1JD753J	3-102	AA		C	
VRS-CY1JD823J	3-103	AA		C	
VRS-RA3AA153J	4- 46	AB	N	C	
VRS-TP2BD000J	3-104	AA		C	
VRS-TP2BD200J	3-105	AA		C	
VRS-TP2BD300J	4- 47	AA		C	
VRS-TP2BD332J	3-106	AA		C	
VRS-TP2BD910J	4- 48	AA		C	
VRS-TS2AD000J	4- 49	AA		C	
VRS-TS2AD103J	4- 50	AA		C	
VRS-TS2AD104J	4- 51	AA		C	
VRS-TS2AD113J	4- 52	AA		C	
VRS-TS2AD124J	4- 53	AA		C	
VRS-TS2AD153J	4- 54	AA		C	
VRS-TS2AD183J	4- 55	AA		C	
VRS-TS2AD202J	4- 56	AA		C	
VRS-TS2AD203J	4- 57	AA		C	
VRS-TS2AD221J	4- 58	AA		C	
VRS-TS2AD222J	4- 59	AA		C	
VRS-TS2AD223J	4- 60	AA		C	
VRS-TS2AD224J	4- 61	AA		C	
VRS-TS2AD273J	4- 62	AA		C	
VRS-TS2AD303J	4- 63	AA		C	
VRS-TS2AD304J	4- 64	AA		C	
VRS-TS2AD332J	4- 65	AA		C	
VRS-TS2AD391J	3-107	AA		C	
VRS-TS2AD471J	4- 66	AA		C	
VRS-TS2AD513J	4- 67	AA		C	
VRS-TS2AD621J	4- 68	AA		C	
VRS-TS2AD822J	4- 69	AA		C	
VRS-TS2AD913J	4- 70	AA		C	
VRS-TW2ED910J	3-108	AA		C	
VRS-TX2HD000J	3-109	AB		C	
VRS-TX2HD331J	3-110	AC		C	
VRS-TX2HD910J	3-111	AA		C	
VRSCY1JD1373F	3-112	AA		C	
VRSCY1JD4422F	3-113	AA		C	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
VRSCY1JD4703F	3-114	AA		C	
VRSCY1JD6812F	3-115	AA		C	
VS2SA1807-P-1	4- 72	AE		B	
VS2SC2412KS-1	4- 73	AB		B	
VS2SC3415-P-1	4- 74	AP		B	
VS2SD1266A0-1	4- 75	AF		B	
VS2SD592A-S-1	4- 76	AK		B	
VSDTA114EK/-1	3-116	AB		B	
VSDTC114EK/-1	3-117	AB		B	
〃	4- 71	AB		B	
【X】					
XBBSD30P06000	2- 4	AA		C	
XBBSD30P08000	3-118	AA		C	
XBPSD20P05000	3-119	AA		C	
XEBSD30P08000	1- 11	AA		C	
〃	3-120	AA		C	
XEBSE40P12000	2- 2	AA		C	
XEPSD30P08X00	2- 3	AA		C	
XNGSN30-18000	3-121	AC		C	

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